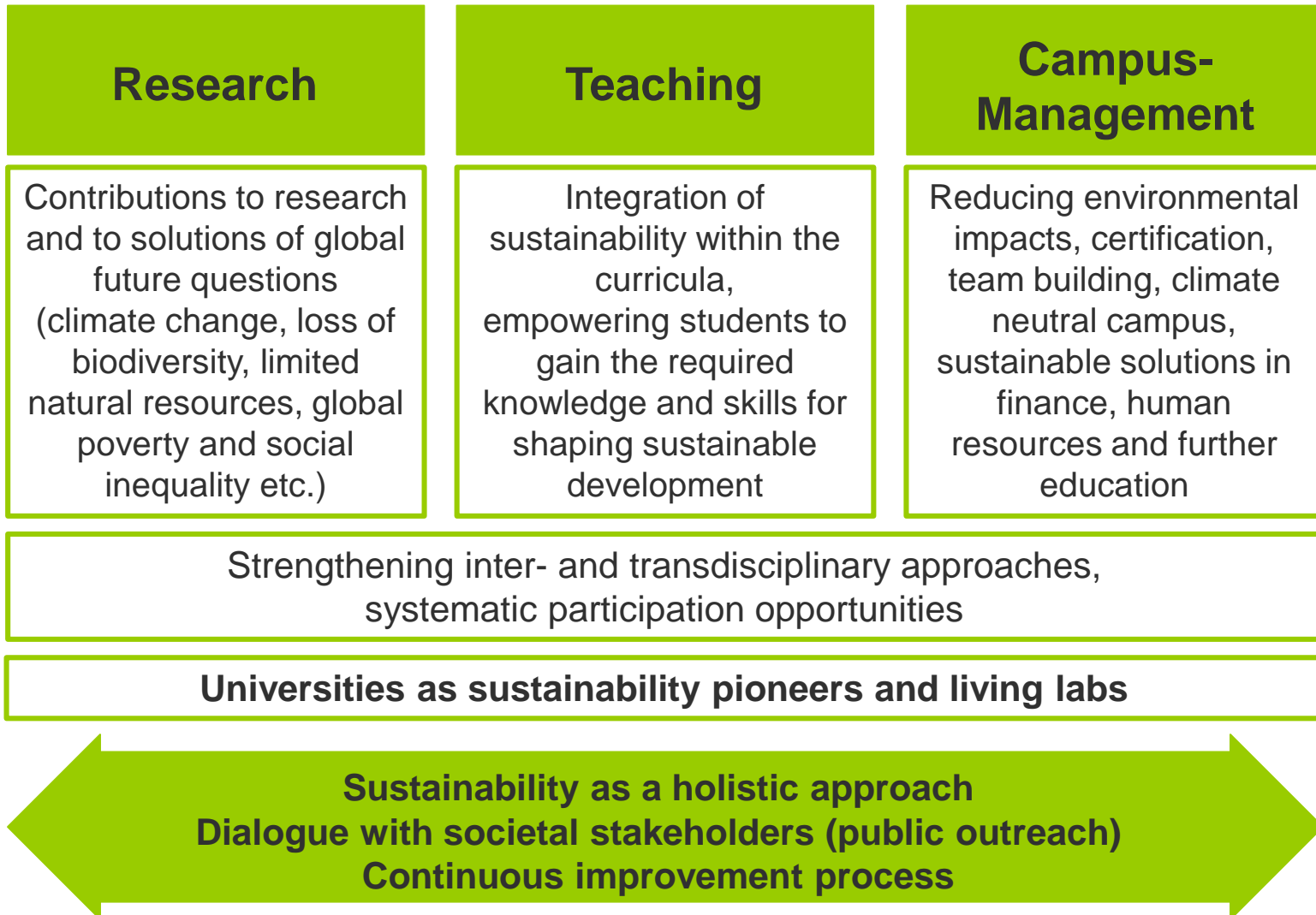




From Vision to Commitment: Sustainable Campus Management

Introduction

Sustainability Areas



Spring Campus – Management Workshop

Session 1: Mechanisms of Change: The Role of Leadership and Middle Management

- Dr. Bernd Kleimann (German Center for Research in Higher Education and Research)
Conditions for Change: University Structures and Leadership Practices from the Perspective of Organizational Sociology
- Tomas Refslund Poulsen (University of Copenhagen)
Drivers for Change – Addressing the University Organization
- Vera Rabelt (Berlin Social Science Center - WZB)
Sustainability in Science – The Role of Human Resource Management

Spring Campus – Management Workshop

Session 2: Mechanisms of Change

- Andreas Wanke (Freie Universität Berlin)
Carrots and Sticks: Triggering Stakeholder Engagement with a Bonus System for Energy Conservation
- Prof. Paul Fleming (De Montfort University, Leicester)
Communication and Information Strategies
- Nora Nording (Berlin Social Science Center - WZB -)
“Tell me and I Forget, teach Me and I May Remember, Involve me and I Learn”: The Impact of Stakeholder Participation on Sustainable Change Initiatives
- Jiala Tang (Peking University)
Integrative Planning as a Tool for Sustainable Campus Development
- Johannes Geibel (Netzwerk N)
Speeding-up the Bottom-Up Transformation of Universities Towards Sustainable Development – the Role and Potential of Students

Session 2: Key Questions

- Which stakeholders and arguments have triggered the establishment of the approach?
- In what way is your approach connected with or dependent on other strategic approaches fostering sustainability in your university?
- Which role played top management and middle management?
- How measurable is the success of your activities? Please describe the most important positive outcomes.
- Concerning lessons learned: Which governance aspects were particularly important for the positive outcomes? Which obstacles did you have to overcome?
- How is your approach transferable to other universities? Which essential internal and external preconditions do you see?

Session 3: Open Space

5 tables dealing each with one of the key mechanisms introduced in the presentations

Please discuss following questions:

- Which experiences do the represented universities have in the regarded field? (first or long-standing?, similar or different? role of top management and middle management?)
- Are the experiences of your university helpful for other universities? In which areas and how?
- Which general obstacles can be identified concerning the key mechanism? How can universities overcome these?
- Are there open questions for living lab projects?



Carrots and Sticks: Triggering Stakeholder Engagement with a Bonus System for Energy Conservation



MANAGEMENT WORKSHOP
Spring Campus
2016, April 12

Agenda

1. Introduction

- Key facts
- Chronology
- Total energy balance
- Participatory approaches

2. Bonus Scheme for Energy Conservation

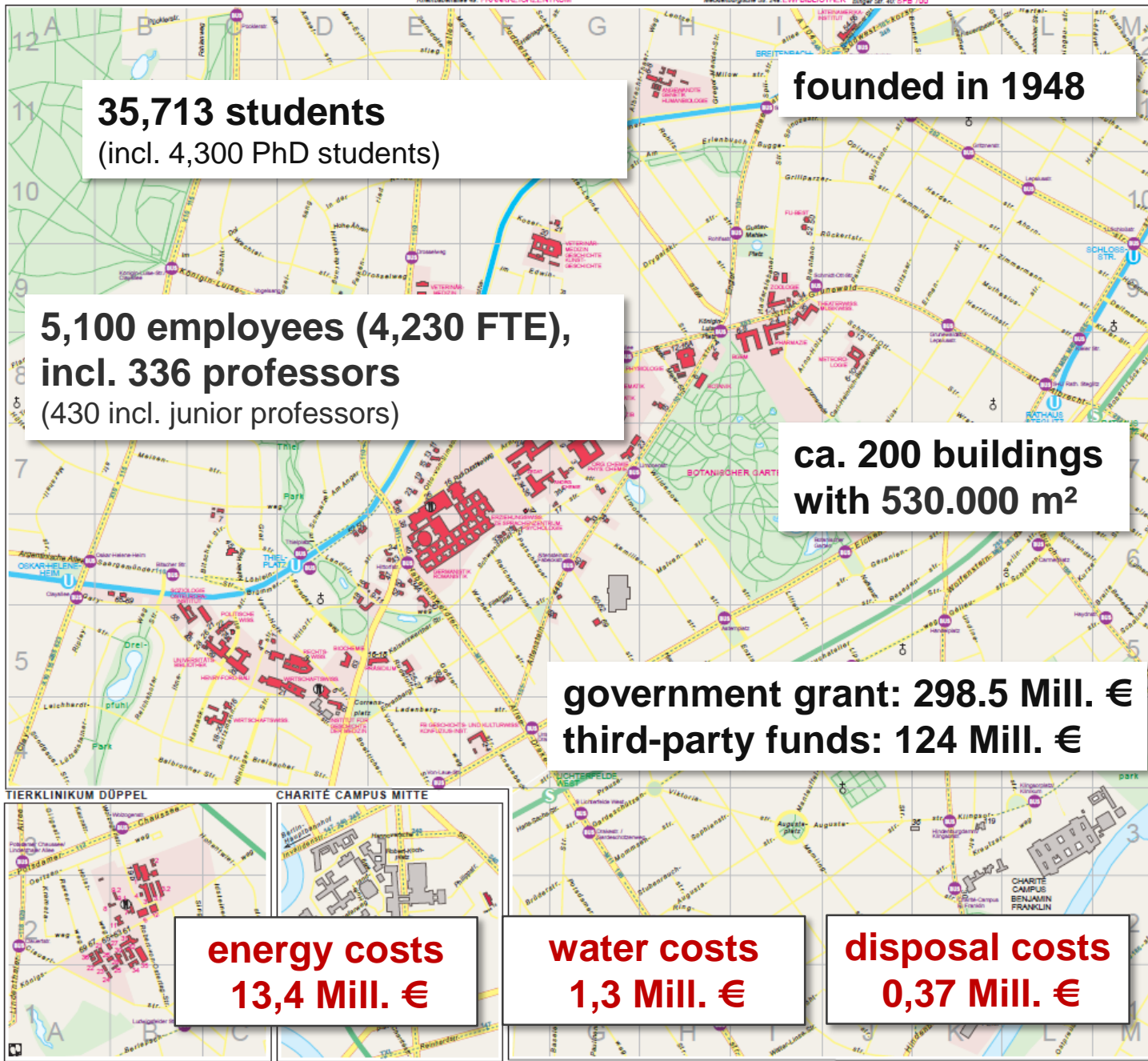
- Goals and Principles
- Bonus Scheme
- Outcomes

3. Conclusions


















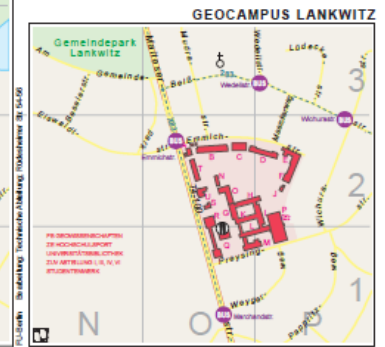
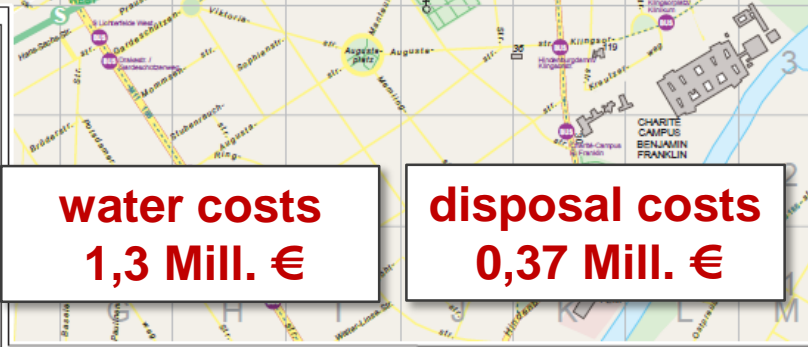
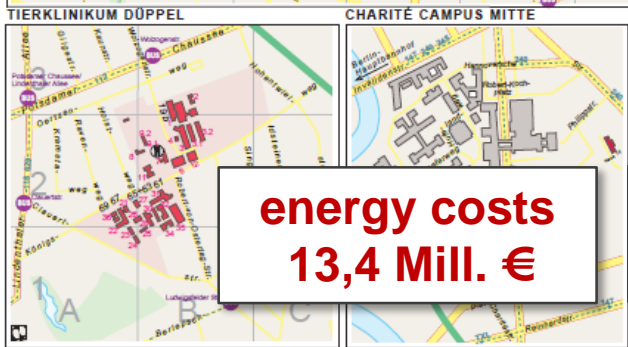
INTRODUCTION



HOCHSCHULSTANDORTE IN
- DAHLEM UND STEGLITZ
- DÜPPEL
- LANKWITZ
- MITTE

Stand 18.08.2014

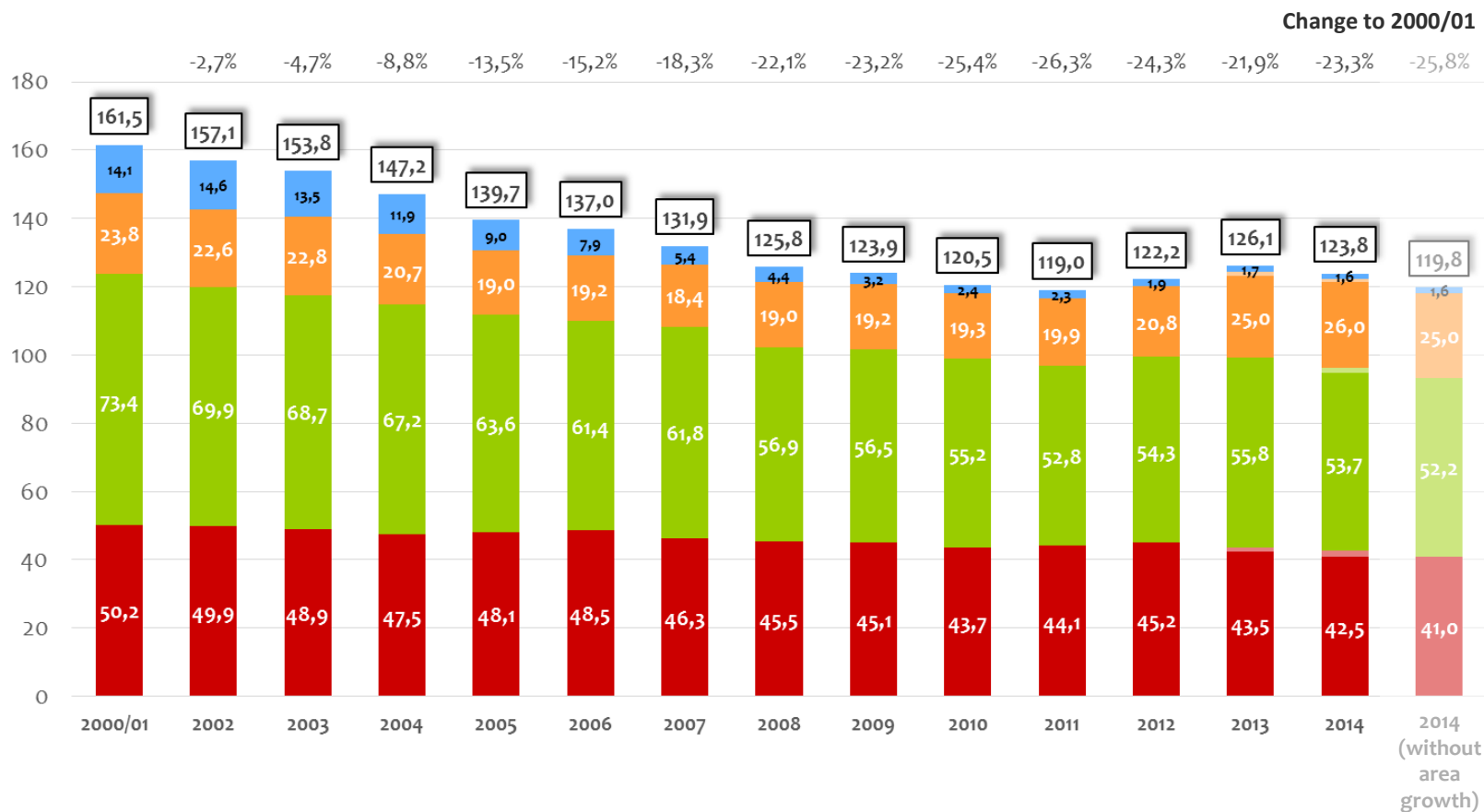
-  Gebäude der FU mit Grundstücksfläche und Hausnummer
- GEOGRAPHIE**
-  Mensa
-  Gebäude mit teilw. FU-Nutzung
-  Übrige bebaute Fläche
-  Grünfläche
-  Gewässerfläche
- Thiallee:**  Wichtige Hauptstraße
- Schloßstr.:**  Hauptstraße
- Geystr.:**  Nebenstraße
-  Buslinie mit Haltestelle
-  S-Bahn Linie mit Bahnhof
-  U-Bahn Linie mit Bahnhof
-  Bushaltestelle



Datas: students: 2015, employees: end of 2014, energy costs: 2014, water costs: 2012, disposal costs: 2013

Final Energy Procurement 2000 – 2014

in Mill. kWh, heating datas weather adjusted



-23.3%
(-25.8%)

-88.8%
(-88.8%)
Heating Oil

+9.5%
(+5.3%)
Natural Gas

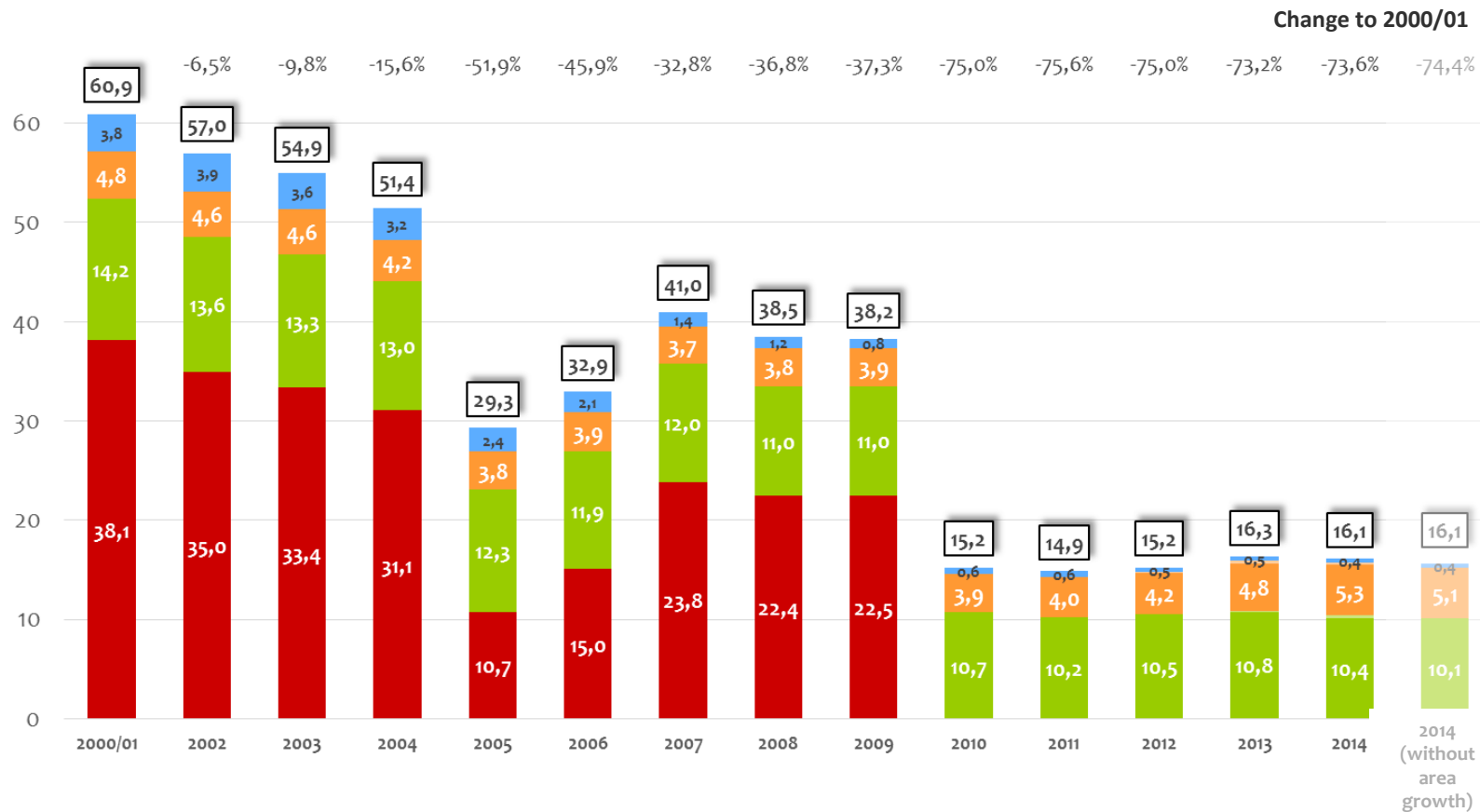
-26.9%
(-28.9%)
District Heating

-15.3%
(-18.4%)
Power

Cost Reduction 2014 (compared to baseline 2000/01): 3.8 Mill. Euro

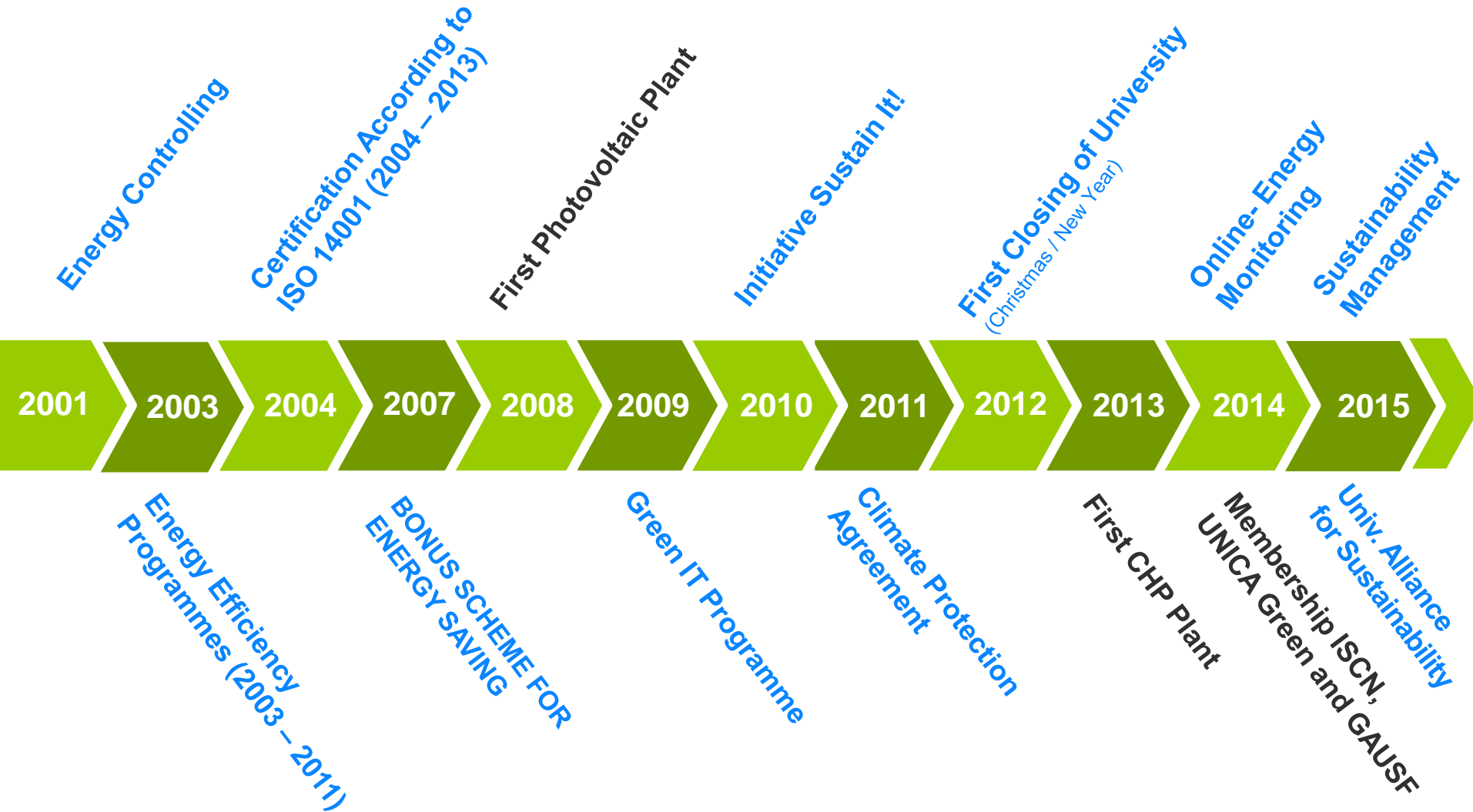
CO₂-Emissions 2000 – 2014

in 1,000 tons, CO₂ factors as procured



- 73.6%**
(-74.4%)
- 88.8%**
(-88.8%)
Heating Oil
- +9.5%**
(+5.3%)
Natural Gas
- 26.9%**
(-18.9%)
District Heating
- 100%**
(-100%)
Power

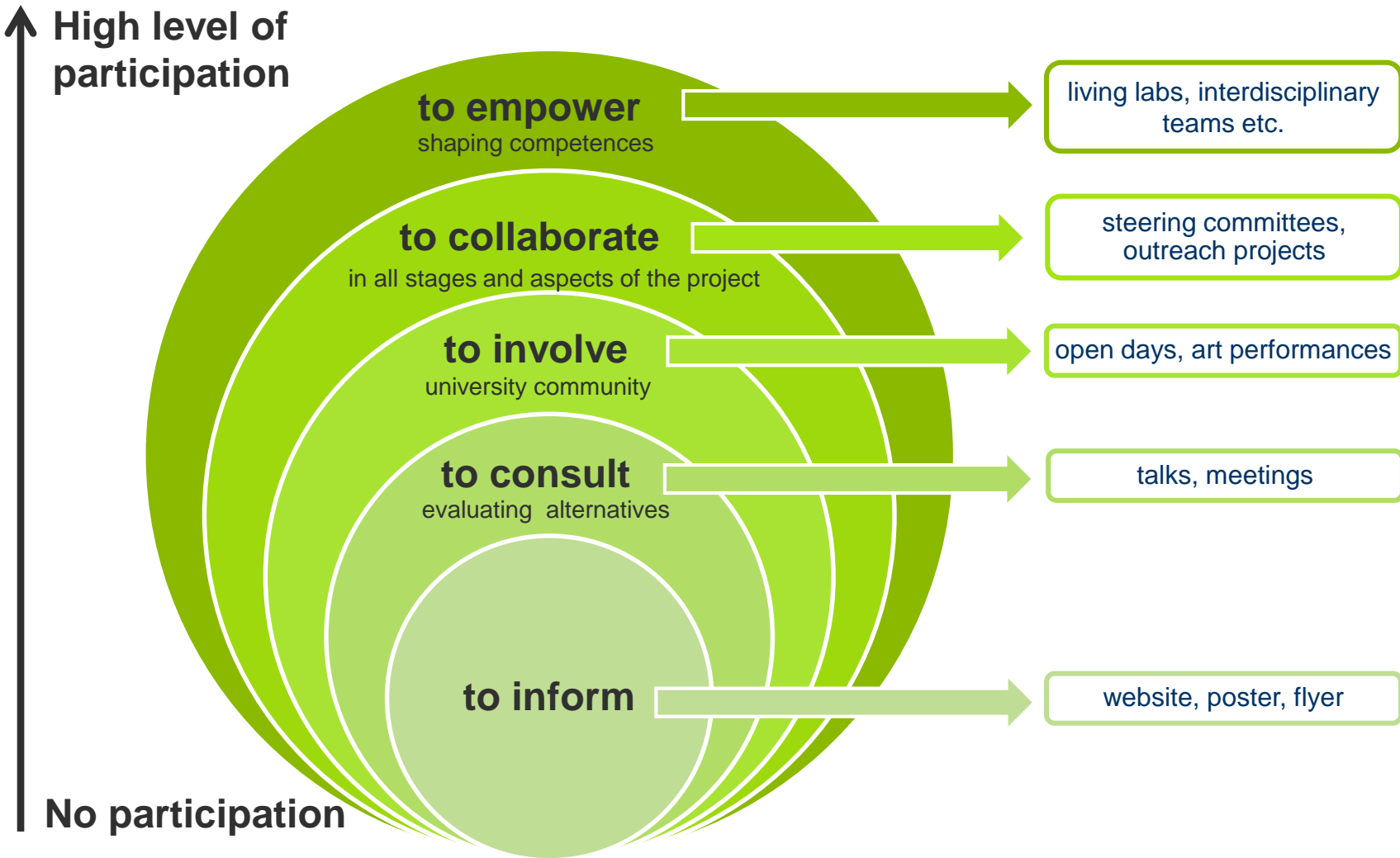
Chronology of Key Steps



Blue colour = instruments and measures with strong needs of participation processes
 Black colour = management focused instruments and measures

Participatory Approaches

(from the perspective of participatory processes)



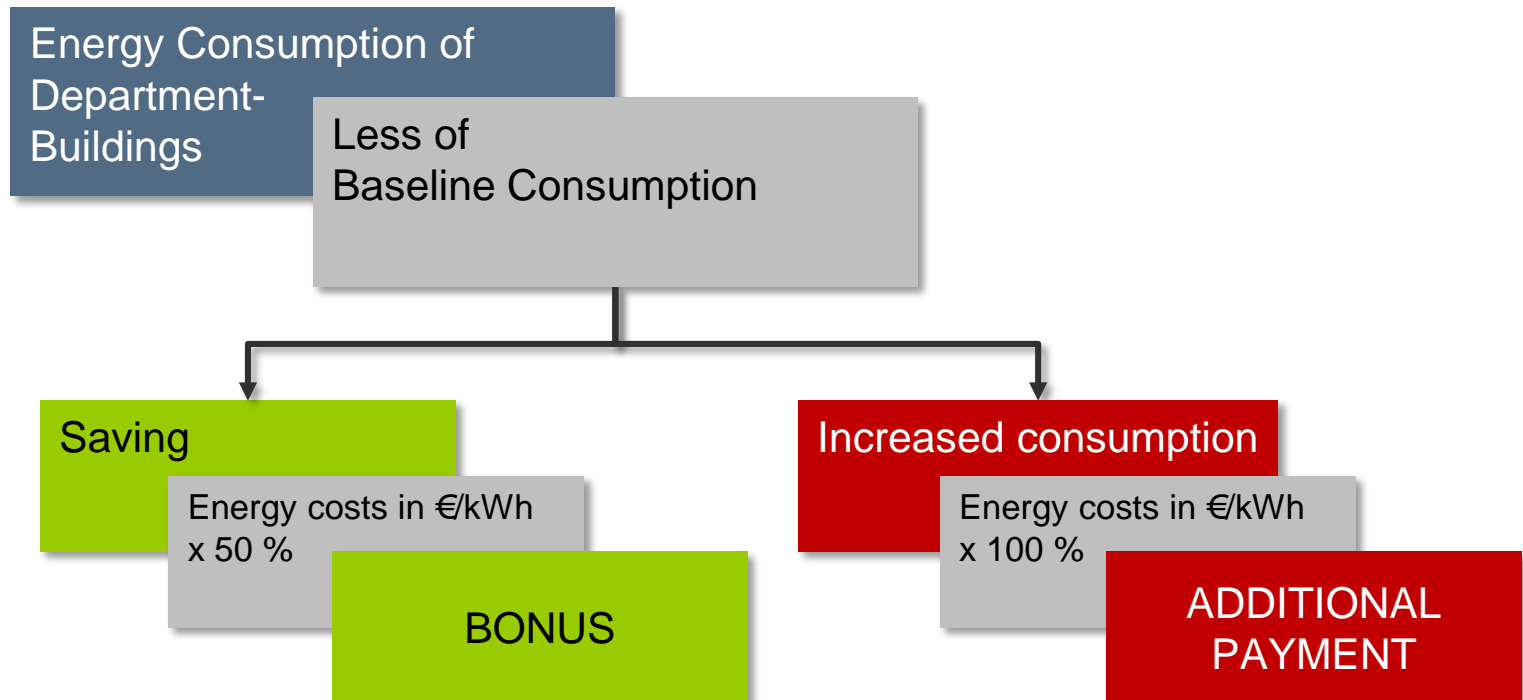
Source: Antje Disterheft et al, Journal of Cleaner Production 31 (2012) S. 82, adapted from International Association for Public Participation, 2007

Chronology

- 1. Talks concerning options to establish an incentive system within the steering committee since the beginning**
- 2. Decision to establish a bonus scheme for energy saving in 2006**
- 3. Fixing of the baseline data**
- 4. Individual talks with the heads of faculty administrations**
- 5. Target agreements with deans of faculties**
- 6. Start of the baseline scheme in 2007**

Bonus Scheme

Principles



Principles of the Bonus Scheme

- **Bonus payments (50 %), if energy consumption falls below the baseline consumption**
- **Additional payments (100 %), if energy consumption exceeds the baseline**
- **Baseline = building-related averaged energy consumption 2004/05, with some exceptions in 2006/07 (several adaptations in lab buildings since 2007)**
- **Consideration of exceptional factors** (renovation of buildings, procurement of new large-scale equipment in lab buildings)
- **Negotiations about baseline adjustments at unanticipated events**
 -
 -

Bonus Scheme

Results 2007 - 2013

Faculty	Bonus 2007	Bonus 2008	Bonus 2009	Bonus 2010	Bonus 2011	Bonus 2012 (Baseline: -2%)	Bonus 2013* (Baseline: -4%)
Biology, Chemistry, Pharmacy	-47,464 €	101,583 €	211,961 €	220.983 €	270,162 €	212,288 €	176,876 €
Physics	5,670 €	20,199 €	13,333 €	25.049 €	59,206 €	31,602 €	44,481 €

Faculty	Bonus 2007	Bonus 2008	Bonus 2009	Bonus 2010	Bonus 2011	Bonus 2012 (Baseline: -2%)	Bonus 2013* (Baseline: -4%)
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Physics	5,670 €	20,199 €	13,333 €	25.049 €	59,206 €	31,602 €	44,481 €
Political and Social Sciences	13,620 €	8,837 €	12,191 €	9,945 €	4,461 €	4,882 €	3,584 €
History / Cultural Studies	5,740 €	8,700 €	12,427 €	13,877 €	14,806 €	15,278 €	3,781 €
Business & Economics	4,058 €	7,070 €	8,144 €	8,736 €	11,765 €	11,575 €	9,304 €
Laws	1,412 €	6,597 €	14.138 €	13,505 €	6,602 €	7,940 €	7,115 €
Philosophy & Humanities	4,345 €	5,522 €	4,513 €	7,079 €	16,328 €	11,410 €	6,581 €
Education & Psychology	-5,918 €	2,601 €	5,837 €	5,452 €	8,218 €	2,495 €	1,141 €
Mathematics & Computer Sciences	-2,553 €	2,591 €	5,419 €	4,609 €	4,107 €	3,187 €	5,486 €
Earth Sciences	5,909 €	1,537 €	4,451 €	4,307 €	4,573 €	536 €	k.A.
ZI East European Studies	1,994 €	3,141 €	4,498 €	3,498 €	1,684 €	2,234 €	2,313 €
ZI Latin American Studies	361 €	1,179 €	971 €	764 €	1,365 €	1,482 €	738 €
ZI John F.- Kennedy Institute	486 €	0 €	0 €	684 €	247 €	883 €	- 629 €

Bonus Scheme

Results I

Significantly intensified energy saving activities and enforced communication at department level



More suggestions on technical and weak constructional points by university members

Improved cooperation in environmental teams

Bonus payments were partially spent on further energy efficiency measures

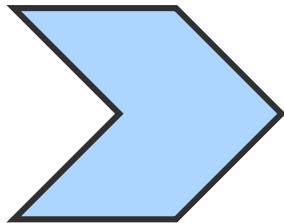
Bonus Scheme

Results II

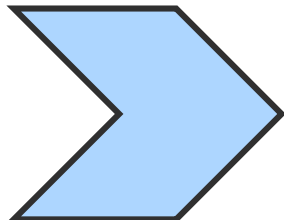
The quality of energy saving activities is very different



The audits show further energy saving opportunities in many buildings



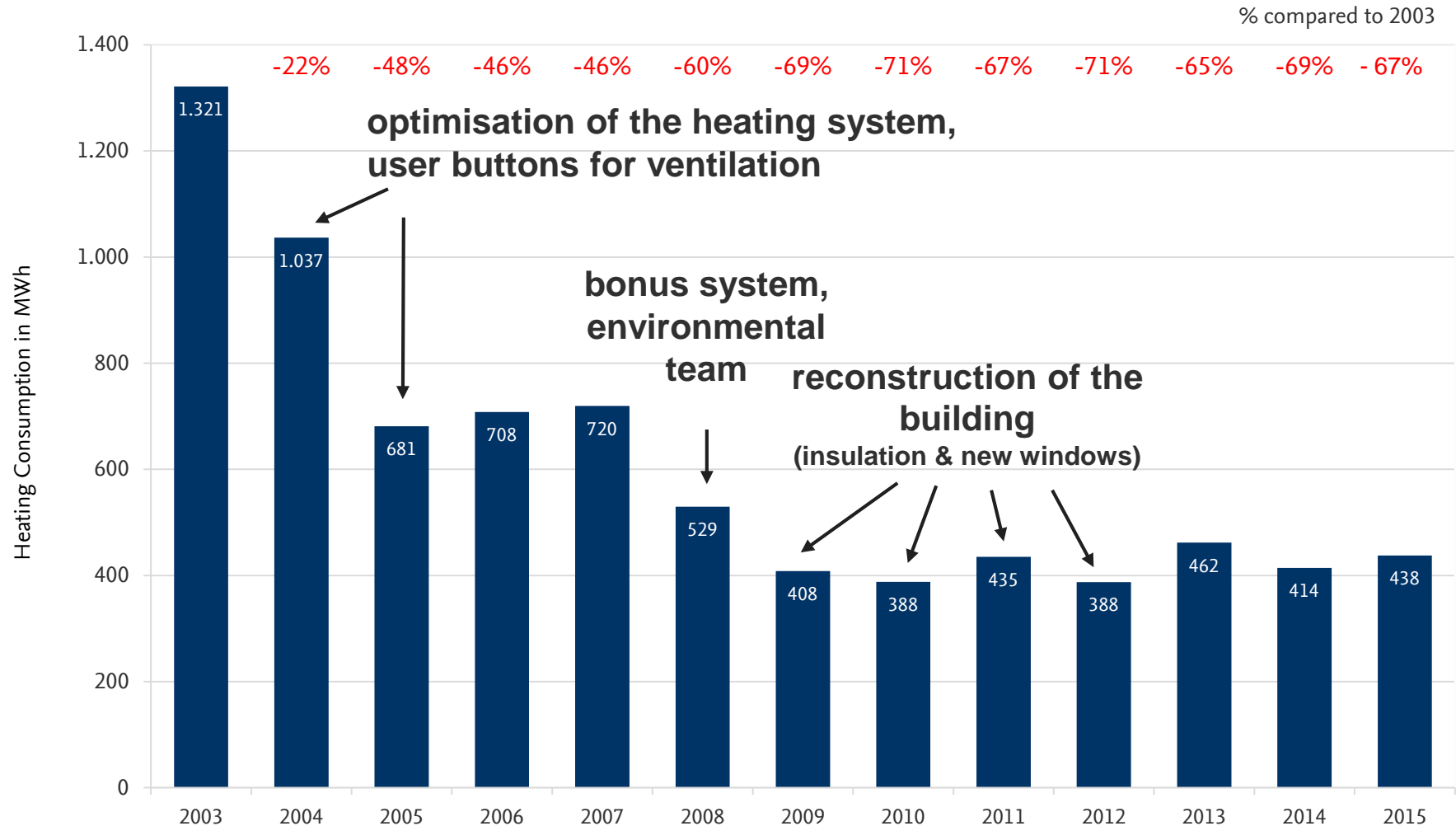
Cut of the baseline by two percent per year in 2012 and 2013 and by three percent in 2014 and 2015



Closing the university at Christmas / New Year for two weeks, implemented since 2012/13

Institute Building, Faculty of Law

Heat Consumption, 2003 – 2015 in MWh
 (2003: 139 kWh/m² - 2015: 46 kWh/m²)



Key questions

- Which stakeholders and arguments have triggered the establishment of the approach?
 - Clear and continuous leadership by the head of finance and administration
 - Long debate and consensus in the steering committee
 - Key argument: complement annual energy efficiency programs by organizational and behavioral measures
- In what way is your approach connected with or dependent on other strategic approaches fostering sustainability in your university?
 - Close connection with participatory approaches
 - Connection with HR management (paid overtime hours for caretakers)

Key questions

- Which role played top management and middle management?
 - Strong role of leadership (head of administration and steering committee)
 - Authentic collaboration of the majority of middle management in faculties
 - Constructive role of most caretakers

- How measurable is the success of your activities?
Please describe the most important positive outcomes
 - Generally difficult to measure, but verifiable in selected buildings
 - High significance of not measurable outcomes, esp. enhanced understanding of sustainability issues and demands as well as improved community engagement

Key questions

- Concerning lessons learned: Which governance aspects were particularly important for the positive outcomes? Which obstacles did you have to overcome?
 - Financial incentives facilitate sustainable campus management, but must be transformed by participation into social activities
 - The involvement of stakeholders by cross-sectional teams seems to be the most promising strategy
 - Obstacles: participation needs willingness of individual team members to cooperate

Key questions

- How is your approach transferable to other universities? Which essential internal and external preconditions do you see?
 - Transfer is generally possible, if technical and financial preconditions allow this (condition of the technical equipment, installed meters, energy prices etc.)

Thank you for your attention!



Contact:

Andreas Wanke

Coordinator for Sustainability and Energy
Management

andreas.wanke@fu-berlin.de

www.fu-berlin.de/sustainability