OIKONET A global multidisciplinary network on housing research and learning

Deliverable 4.3
International Workshops (Cottbus)

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Lead partner: BTU

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## Deliverable Administration and Summary

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### Work Programme Description

Three international workshops will take place: Lisbon (2013-14), Cottbus (2014-15) and Belgrade (2015-16). The workshops will address specific housing problems at community level. The themes of the workshops will be informed by the outcomes of the subnetworks’ Housing Studies and Community Participation. The workshops will be integrated into the coordinated learning activities carried out at the seminars and courses at the participating institutions. Preparatory activities will be carried out as part of the joint learning activities developed in OIKODOMOS Workspaces. Both the process and the outcomes of the workshop will be documented in the network.

### Comments

#### Document history

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1 EXECUTIVE SUMMARY

Three international workshops were planned within the OIKONET project to take place in Lisbon (2014), Cottbus (2015) and Belgrade (2016). The first of these workshops was carried out during the first year of the project activities in Lisbon, from July 14 to 19, 2014, organized by the University Institute of Lisbon (ISCTE-IUL). The second was carried out from June 1-6, 2015, organized by the Brandenburg Technical University (BTU). This report focuses on the work done around the second workshop in Cottbus.

The topic of the Cottbus workshop was “Contemporary Living Patterns: Growth / Shrinkage – Berlin / Cottbus”. The objective of the six-day workshop was to address the issues of growth and shrinkage by juxtaposing both scenarios. The two cities, Berlin and Cottbus, served as our fields of investigation to speculate and experiment with possible ways of dealing with the duality of growth and shrinkage and its effects and requirements on housing schemes and urban strategies. The participants in the workshop investigated and established architectural and spatial strategies and worked on ideas that helped understand the issues complexity and significance.

52 students and 21 tutors from 15 European schools of architecture and urban planning, all partners in the OIKONET project, participated in the workshop. Participating students carried out preparatory activities before meeting in Cottbus, on the OIKODOMOS Workspaces learning environment. The preparatory work done at each school was presented in a public session on the first day of the workshop.

The workshop activities included lectures by representatives of the municipality of Cottbus and Berlin, as well as professors from BTU specialized in the different subjects encompassed in the topic (demographic changes, rural exodus, growth of urban agglomerations, consequences for both urban and rural landscapes, infrastructural consequences), guided visits to the two cities and design studio work. Students were faced with the challenge of the issues of growth and shrinkage by juxtaposing both scenarios. The participants in the workshop investigated and established architectural and spatial strategies and worked on ideas that will help understand the complexity and significance of the phenomena of urban growth and shrinkage.

By the end of the six-day workshop, each group of students have gained theoretical insight into the urban processes of growth and shrinkage in the form of intense research and documentation, as well as the ability to verify urban possibilities for Berlin / Cottbus with respect to the overall topic.

The multidisciplinary approach to housing and urban planning proposed in the Cottbus workshop demanded a learning model that enabled students to achieve the necessary skills to bring together various methodologies fostered by each discipline. Typically, this integration is achieved through a project-based approach, confronting students with a specific problem at a specific location.

Students worked in teams with each team composed of students from different schools to foster the exchange across countries, cultures and educational programs. Overall, there were 11 teams

1 http://www.oikodomos.org/workspaces/index.php/workshops/preview/27
of 4-5 students, 5 working on sites in Cottbus and 6 on sites in Berlin.

The workshop ended with a final presentation of the work produced by each group of students as an exhibition that attracted a wider audience beyond the participants themselves. The works were presented and additionally uploaded onto the project blog. Tutors acted as critics in this final presentation. Students also summarized their work in posters which were hung in the final exhibition at BTU, together with the models built at different scales. In the days after the workshop tutors commented on the submitted projects on the workshop blog. An evaluation report summarizing the feedback obtained from students and tutors is presented in the Appendix. The outcomes of this evaluation were taken into account in the planning of the next workshop in Belgrade.

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2 http://oikonet-cottbusworkshop.blogspot.es/
2 INTRODUCTION

2.1 Purpose and target group

This report summarizes the work done during the second international OIKONET workshop held in Cottbus from June 1-6, 2015. It encompasses the preparatory activities done prior to the workshop in the OIKODOMOS Workspaces environment, the program of activities and results produced in the workshop and the evaluation of the students’ work by tutors. Altogether, this report provides a comprehensive view of the pedagogic work done around this workshop. The main target groups are the tutors who participated in the workshop, as well as other faculty members at their home organizations who are involved in pedagogic innovation and contemporary housing. The report is also useful to faculty members at other institutions (mostly in architecture and urban planning), as it allows for a deeper insight about the work done in the OIKONET network to create a cross-disciplinary, trans-institutional pedagogical space around the topic of contemporary dwelling.

2.2 Contribution of partners

Brandenburg Technical University Cottbus-Senftenberg (BTU) was in charge of the organization of the workshop. 15 partners participated in the workshop activities, sending both tutors and/or students to Cottbus. USI has been in charge of the evaluation of the pedagogic results. The coordination of the preparatory activities prior to the workshop was undertaken by KU-Leuven and UGA. LA SALLE has made the final editing of this report.

2.3 Relations to other activities in the project

The work carried out during the Cottbus workshop is very much related to the learning spaces being developed in the WP4 Pedagogical Activities. In particular, the preparatory activities for the workshop followed a similar methodology as the one applied in the design of the learning spaces (see Deliverable 4.1 “Learning Spaces”).
3 PROGRAM

The second OIKONET international workshop on the theme “Contemporary living patterns: Shrinkage/Growth – Cottbus/Berlin” ran from June 1-6, 2015 at BTU, in Cottbus. The planning department of Cottbus and the Senate Department of Urban Development and the Environment / Housing Coordination of Berlin contributed to the organization of the program.

The objective of the six-day workshop was to address the issues of growth and shrinkage by juxtaposing both scenarios. Two cities, Berlin and Cottbus, served as our fields of investigation to speculate and experiment with possible ways of dealing with the duality of growth and shrinkage and its reciprocal effects on housing schemes and urban strategies. The participants in the workshop investigated and proposed architectural and spatial strategies that helped understand the issues complexity and significance.

An overall housing design process was addressed during the workshop activities, starting from theoretical approaches and ending with analogue model making. The teaching methodology was based on a combination of lectures on the various subjects involved, field studies and design studio work. Pedagogical activities brought together different stakeholders, learning environments and disciplines. This workshop made it possible for participants to explore a new pedagogical framework specifically around new design strategies to approach social inclusion, densification, redevelopment, mobility and to foster collaborative interdisciplinary environments and digital processes. Prior to the meeting in Cottbus, preparatory activities were carried out by the participating students on the OIKODOMOS Workspaces learning environment. The preparatory work done at each school was presented in a public session on the first day of the workshop.

The multidisciplinary approach to housing and urban planning proposed in the Cottbus workshop demanded a learning model that enabled students to achieve the necessary skills to bring together the different methodologies fostered by each discipline.
3.1 Participants

52 students and 21 tutors from the 15 European Schools of Architecture and Urban Planning within the OIKONET network participated in the workshop. The participating organizations were:

- P1 LA SALLE- School of Architecture La Salle, Barcelona, Spain (4 students, 2 tutors)
- P2 ETSA-UPV- School of Architecture, Polytechnic University of Valencia, Spain (3 students, 2 tutors)
- P3 FASTU- Faculty of Architecture, Slovak Technical University, Bratislava, Slovakia (2 students, 2 tutors)
- P4 KUL- Faculty of Architecture, KU Leuven, Gent/Brussels, Belgium (4 students, 1 tutor)
- P5 BTU- Faculty of Architecture, Brandenburg Technical University, Cottbus, Germany (6 students, 2 tutors)
- P9 UTH- Department of Architecture - University of Thessaly, Volos, Greece (3 students, 1 tutor)
- P13 AAU- Department of Architecture, Design and Media Technology, University of Aalborg, Denmark (3 students, 1 tutor)
• P15 UCY- Faculty of Architecture, University of Cyprus, Cyprus (2 students, 1 tutor)
• P16 UCLan- Grenfell-Baines Institute of Architecture, University of Central Lancashire, UK (3 students, 1 tutor)
• P18 UGA- Institut d'Urbanisme de Grenoble, Université Grenoble Alpes, France (3 students, 2 tutors)
• P20 GTU- Faculty of Architecture, Gebze Technical University, Turkey (3 students, 1 tutor)
• P25 ISCTE- Department of Architecture and Urbanism, University Institute of Lisbon, Portugal (3 students, 1 tutor)
• P27 BUT- Faculty of Architecture - Bialystok University of Technology, Poland (3 students, 1 tutor)
• P29 DIT- School of Architecture, Dublin Institute of Technology, Ireland (5 students, 2 tutors)
• P30 ITU- Faculty of Architecture, İstanbul Technical University, Turkey (5 students, 1 tutor)

Besides, staff from P6- USI carried out the evaluation of the activities carried out before and during the workshop (see Appendix).
3.2 Workshop theme: “Contemporary living patterns: Growth / Shrinkage – Cottbus / Berlin”

All over Europe, demographic change has become an undeniable factor for the development perspectives of municipalities. Whereas large metropolises tend to attract new inhabitants, many cities realize that growth is something they can no longer rely on. Both growing and shrinking communities are emerging simultaneously, a fact which confronts them with unprecedented urban and architectural problems. Although at first sight growth and shrinkage seem to be opposite trends, they have to be regarded as two sides of the same coin. By observing the ‘growth paradigm’ and the ‘decline paradigm’ simultaneously, we can conceptualize both as part of the same phenomena and thus explore and envision the future of our cities from a different perspective.

For modern societies, acceleration, accumulation, and growth stand for development and wealth. However, it should not be forgotten that growth can be one of the most significant and delicate challenges a city needs to face. How can a city deal with growth in order to maintain adequate living standards and proper infrastructures and services for its inhabitants? On the other side of the coin shrinkage stands for decline and decay, but it could also be seen as an opportunity. Shrinkage embodies a potential for renewal, modernization, and it also provides opportunities to improve the life of the citizens. So, what are these opportunities and how can we take advantage of them?

In fact, Berlin and Cottbus represent the two sides of the coin. Both cities share a rich cultural, economic and political history. They are main centres in the Brandenburg region and historically have been strategic nods on the regional and transnational trading routes in spite of changing circumstances and political systems. Despite these similarities and their geographic proximity, Berlin and Cottbus’ development forecasts are far from alike. Berlin, as the German capital and as an increasingly growing market for global investment, is already suffering from housing shortage and displacement processes – not only because of global forces but also due to unfortunate political decisions. For the last years, the city has been facing new challenges and now has to prepare to receive a continuous influx of new inhabitants (in 2030 Berlin expects 250,000 additional inhabitants). That trend requires supplementary housing and the reinforcement of the urban infrastructure.

However, where and how should people live? Density seems to be an issue that needs to be tackled. Which levels of density are reasonable or still beneficial and in which way can building structures allow for density without reproducing precarious inner-city housing conditions from the 19th century? What are the options for coping with future prospects? How should planners deal with densification? Are high-rise developments suitable for European cities and, if so, where? Are mass-suburbanizations along the city fringes and dispersion, as we know it from the 1990s, still an option? What should the spatial structures of the contemporary metropolis look like, and what solutions can architects and urbanists provide?

At the same time, Cottbus is dealing with problems of stagnation - if not shrinkage. The city’s heydays as an industrial hub during the GDR times with more than 120,000 inhabitants have passed, and soon after the German reunification, the city started losing people – with many moving to Berlin - a process that has also been speeded up by inadequate municipal governance. Nonetheless, the city also has flourishing neighbourhoods that are not affected by shrinkage at all.
How can a city be downsized and its good qualities be strengthened at the same time? How can urban infrastructure such as local transport be reorganized and contracted and, at the same time, be environmentally sustainable? Where are the limits to that process and what architectural and urban strategies can be established? How can “shrink-to-fit” strategies be implemented into planning processes and how can they become an opportunity for a city?

The workshop addressed the issues of growth and shrinkage by juxtaposing both scenarios, as exemplified in the two cities, Berlin and Cottbus. Both cities served as fields of investigation to speculate and experiment with possible ways of dealing with the duality of growth and shrinkage and its effects on housing schemes and urban strategies.
3.3 Preparatory learning activities

The workshop was part of a comprehensive learning program, which included preparatory activities carried out within the learning workspace “Contemporary living patterns” (Figure 4) during the three months before the workshop. Following the pedagogic model developed in the previous OIKODOMOS program, a learning space\(^3\) was implemented to carry out activities to make students familiar with the project sites, to start reflecting on the themes of the workshop and to start online collaboration before coming together in the workshop.

![OIKODOMOS: WORKSPACES](image)

These are the Workspaces you are registered:

**Workspace: CONTEMPORARY LIVING PATTERNS : GROWTH / SHRINKAGE**

Date Start: 26 March 2015  Date End: 30 September 2015

All over Europe, demographic change has become an undeniable factor for the development perspectives of municipalities. Whereas large metropolises tend to attract new inhabitants, many cities have to realise that growth is something they can no longer rely on. Both growing and shrinking communities are emerging simultaneously confronting cities with unprecedented urban and architectural challenges. While at first sight growth and shrinkage seem to be contrary trends, they have to be considered as two sides of the same coin. The “growth paradigm” must be parallelled by a “decline paradigm” in order to allow us to conceptualise both phenomena and to explore and envision possible futures for cities. Growth usually suggests development and wealth, but this trend presents also a number of urban challenges. How can a city deal with growth in order to maintain adequate living standards and infrastructural supply for its inhabitants? Shrinkage often stands for decline and decay, but it could also be seen as an opportunity for urban renewal. What are then the opportunities of shrinkage and how can a place be downsized without being destroyed?

The topic Growth/Shrinkage is the subject of this Learning Space. It consists of two learning activities: preparatory activities carried out before the workshop, and the activities done in the workshop itself. Participating schools have the choice to continue working on the topic after the end of the workshop.

Institutions participating in this workspace:
- P3 FASTU Slovak University of Technology, UCLan, Dublin Institute of Technology, ETS Arquitectura La Salle, KU Leuven, GTU-GEISEI TECHNICAL UNIVERSITY, BUT, UTH, AAU, BTU Cottbus, IUG, ETS Arquitectura de Valencia, ITU, DSA/DIT, ISICTE - University Institute of Lisbon, P26 - AF_Belgrade, University of Belgrade, Bialystok University of Technology, University of Cyprus, P28 ELTE

**Figure 4. Contemporary living patterns learning space**

The design of the learning activities to be carried out in the learning space took into account the various disciplinary approaches included in the program of the workshop. The structure of the learning activities was as follows:

- Urban and architectural analysis of Cottbus and Berlin
- Thematic reflections:
  - Concept of growth
  - Concept of shrinkage
  - Demographic challenges
  - Mobility
  - Urbanization/ De-urbanization

In the next section, the Learning Activities (LAs) and Tasks (TKs) will be described in detail.

**- LA82: CONCEPTS AND CONTEXTS OF GROWTH AND SHRINKAGE.** The goal was to understand the meaning and impact of growth and shrinkage from a multidisciplinary point of view (socio-demographic, economic, and environmental etc.). The materials provided for

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\(^3\) http://www.oikodomos.org/workspaces/index.php/workshops/preview/23
this purpose were articles, texts, maps, images and essays.

- **TK1: Research** (Coordinator: Adriana Diaconu, UGA). The first task was to produce a written report or critical essay, which provided both an understanding of the topic area and a particular set of city contexts, to equip students with the background knowledge to enable them to move onto Task 2 (TK2). Students had to choose at least two references from two sections in the bibliography. Additionally, students could use other resources as well as Oikopedia entries. The essay had to include an introduction and appropriate conclusions; additionally, it had to be annotated with suitable diagrams, drawings, photographs and a bibliography.

- **TK2: Strategies for growth and shrinkage**, (Coordinator: Adriana Diaconu, UGA). With the knowledge gained in Task 1 students had to select and to analyse one or several examples of urban expansion and/or contraction in their own home country.

- **TK3: Getting to know Berlin.** By using plans, maps and aerial photographs, students identified areas likely to be subject to densification in Berlin. They made graphic proposals for implementing the densification strategies studied in Task_2 in the chosen urban setting in Berlin. The proposal had to be backed by the theoretical position formulated in Task 1.

- **TK4: Getting to know Cottbus.** By using plans, maps and aerial photographs, students identified areas likely to be subject to de-urbanisation in Cottbus. They made graphic proposals for implementing the strategies studied in Task_2 in the chosen urban setting in Cottbus. The proposal had to be backed by the theoretical position formulated in Task 1.

- **LA83: COTTBUS AND BERLIN WORKSHOP.** This learning activity encompassed all work carried out by the students during the workshop in five major steps and included the students’ presentations of the preparatory activities which were presented on day 1:

  - **TK5: Group Presentations of pre-workshop activities** (coordinator: Adriana Diaconu, UPMF-IUG). The students used a provided template to upload their pre-workshop outcomes and brief presentations.

  - **TK6: Workshop step 1: Identifying.** Students had to find typology stratégie prototype that could provide additional housing stock in Berlin, or that deal with abandoned housing space in Cottbus. The general demand for the Berlin case was to provide housing for 250,000 new inhabitants, and in the Cottbus case, it was to deal with a shrinkage of 25,000 inhabitants. Participants had to find answers for following questions: What quantities can those strategy/typologies/prototypes provide? Which conditions do they require and produce?

  - **TK7: Workshop step 2: Locating.** The findings from step 1 had to be tested on a specific site. To do so, areas or an area that seemed suitable for the chosen typology/strategy had to be found in Berlin/Cottbus.

  - **TK8: Workshop step 3: Testing.** The quantities from step 2 had to be increased according to the required growth/shrinkage. Consequences or effects on the city had to be evaluated and verified – including necessary adaptations of the strategy/amount of habitants.
- **TK9: Workshop step 4: Reflection.** All results from the previous tasks had to be reviewed by the students: Does the proposal have positive and/or negative impacts for the city and how can they be dealt with? Can the proposal be combined with other groups’ proposals, and if so how?

- **TK10: Workshop step 5: Presentation.** All the groups had to show their results in a final exhibition with each group presenting their work as the opening for the show. The presentations included drawings, sketches, images, collages, diagrams and physical and digital models. In addition, the students uploaded their work onto the workshop blog.

![Figure 5. presentation of pre-workshop activities](image)

### 3.4 Organization

The teaching methodology was based on a combination of lectures, field studies, excursions and practical work (design studio).

Students were organized into teams, each one composed of students from different schools to strengthen the exchange across countries, cultures and educational programs. Each team studied a specific site which was identified by them.

### TEAMS

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<tr>
<th>Groups</th>
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<tr>
<td>Group 1</td>
<td>Nathalie Ventura (LA SALLE)</td>
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<tr>
<td></td>
<td>Alena Tunděrová (FASTU)</td>
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<tr>
<td></td>
<td>Clara Van Geel (KUL)</td>
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<td></td>
<td>Simon Büscher (BTU)</td>
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</table>
| Group 2 | Site: Berlin | Valia Anagnostopoulou (UTH)  
|         |              | Dorota Maskal (UCLAN)  
|         |              | Valentin Revillet (UGA)  
|         |              | Mustafa Ozdemir (GTU)  
|         |              | Joana Alves (ISCTE) |
| Group 3 | Site: Berlin | Bartosz Sliwecki (BUT)  
|         |              | John Flynn (DIT)  
|         |              | Selin Gırtçı (ITU)  
|         |              | Héctor Ruiz Vizcaíno (ETSA-UPV) |
| Group 4 | Site: Berlin | Andrea Tusell (LA SALLE)  
|         |              | Saman Hariri (KUL)  
|         |              | Philipp Goelsdorf (BTU)  
|         |              | Dimitra Patra (UTH)  
|         |              | Barbora Feriancová (FASTU) |
| Group 5 | Site: Berlin | Anna Sophie Bresson (AAU)  
|         |              | Konstantinos Chatzimanolis (UCY)  
|         |              | Ali Ahmed (UCLan)  
|         |              | Larissa Correia (UGA) |
| Group 6 | Site: Berlin | Rita Mansinho (ISCTE)  
|         |              | Marcin Kaminski (BUT)  
|         |              | Ward James (DIT)  
|         |              | Ayse Tugce Pinar (ITU) |
| Group 7 | Site: Cottbus | Pol Puncernau (LA SALLE)  
|         |              | Adeline Thys (KUL)  
|         |              | Frank Buchta (BTU)  
|         |              | Penny Pouliou (UTH)  
|         |              | Mike Yosief (UCLan) |
| Group 8 | Site: Cottbus | Justine Gaillard (UGA)  
|         |              | Rumeysa Zeynep (GTU)  
|         |              | Rafal Trzeszczkowski (BUT)  
|         |              | Brown Jessy (DIT)  
|         |              | Tayfun Saman (ITU) |
As agreed by tutors of the participant institutions, the learning outcomes that students were expected to acquire at the end of the workshop, were the following:

- The students will be able to gain theoretical insight into the urban processes of growth and shrinkage.
- The students will experience direct contact to urban strategies by research and documentation.
- The students will be able to identify and verify urban possibilities in Berlin / Cottbus with regard to the overall topic.

### 3.4.1 Materials

At the beginning of the workshop each participant received a pack with all the necessary information about the workshop: (1) Group list; (2) Cottbus map and guide; (3) Berlin guide and map; (4) Timetable and maps of various venues; (5) Workshop program.

### 3.5 Activities program

The workshop started on June 1 with a welcome and introduction followed by a keynote speech (30-minute presentation + 15-minute final round table discussion) and the presentation of the work produced by students in the preparatory activities (pre-workshop) at each institution (10-minute presentation).
3.5.1 MONDAY, 1 June, 2015

09:15 - 09:30  Mathias Klöpfel, Lukas Staudinger, BTU
IKMZ  *Introduction to Cottbus workshop*

9:30- 10:15  Prof. Heinz Nagler / Chair of Design and Building Science BTU Cottbus
IKMZ  *Phenomena of shrinking cities*

10:30- 15:00 Adriana Diaconu, UPMF
IKMZ  *Pre-workshop Students presentations (10 min each group).*
Leesesaal

15:15- 18:00 Doreen Mohaupt, Planning Department Cottbus
*Guided bike tour to two districts mainly affected by shrinkage*

Including on site explanations and discussions

Lecture: Prof. Heinz (Chair of Design and Building Science BTU Cottbus).

*Figure 6. Prof. Heinz Nagler during his keynote lecture*

In his lecture, Prof. Nagler dealt with the following topics: demographic impact on society, urban planning, migration and ageing societies. He gave a general overview on the current situation and an outlook to the future supported by study cases and other examples dealing with the challenges of an aging society.

Learning objectives: To acquire basic knowledge about the demographic situation in Germany (with a focus on East Germany) and the challenges and chances for the society and for the urban development.

**Guided bike tour in the afternoon: Doreen Mohaupt (Planning Department, City of Cottbus).**

All the students and tutors took part in a three-hour bike ride hosted by the representative of the Planning Department of Cottbus, Doreen Mohaupt, which included visits to sites which underwent urban changes due to shrinkage (Cottbus-Schmellwitz); sites which successfully
implemented strategies to cope with shrinkage (Cottbus-Sandow); and sites which have a potential for the future development (open pit mining, future Cottbusser Ostsee) of the region.

**Learning objectives:**

- Acquiring an understanding of the scale and dimensions of the city of Cottbus, its urban fabric and characteristics.
- Acquiring first-hand experience of de-urbanized areas and quarters that are facing massive changes in the close future.

*Figure 7. Bike tour in Cottbus*

### 3.5.2 TUESDAY, 2 June, 2015

<table>
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<tr>
<td>all day</td>
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<td>10:00-11:00</td>
<td>lecture by Andreas Moschke, Senate Department of Urban Development and the Environment / Housing Coordination of Berlin</td>
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A day trip to Berlin took place to get to know the second key subject of the workshop: Growth. It included stops to sites which recently underwent urban changes (Europa City adjacent to Berlin Hauptbahnhof), gentrified areas (Tempelhofer Feld /Neukölln), and sites with densification potential (Thälmann Park in Prenzlauer Berg). In addition, the program included a lecture at the Senate Department of Urban Development and the Environment, and a visit to the exhibition on re-densification projects in Berlin at the Deutsche Architektur Zentrum.

**Lecture: Andreas Moschke** (Senate Department of Urban Development and the Environment / Housing Coordination).
A 45-minute lecture by the spokesman of the Wohnungsbauleitung Berlin (“Housing coordination”) gave an insight into the work of the just recently created “über-bezirkliche” (“beyond district limits”) task force of the city of Berlin that deals with the huge housing demand in the city. The lecture included the following topics: the housing structure and housing conditions in Berlin; the demand for housing in relation to certain areas in the city; and strategies and targets for re-densification. The lecture also provided a general overview on the current situation and an outlook to the future, supported by study cases and other examples dealing with housing shortage (45-minute presentation + 15-minute for questions). This lecture helped students to understand the current and future challenges in the capital of Germany.

*Figure 8. Lecture at Senate Department of Urban Development and the Environment Berlin*

*Figure 9. Berlin City model at Senate Department of Urban Development and the Environment Berlin*
3.5.3 WEDNESDAY, THURSDAY & FRIDAY, 3-5 June 2015

The core the Cottbus workshop was the Design Studio. In the design studio, they worked in teams to develop strategies for places that are exposed to shrinking tendencies or places that have to deal with growth. Six of the eleven teams worked on strategies of growth in Berlin and the other five on issues related to shrinkage in Cottbus.

The studio was a place for students to apply a diversity of methods and design strategies, supervised by the teachers from the OIKONET partners. Additionally, early morning sessions between 10-11am gave space for ad-hoc inputs form OIKONET tutors (Nicolai Steinö – “The Nic-Index”).

Figure 10. Ad-hoc input: “the NIC-Index” by Nikolai Steinö

Figure 11. Design Studio: Tutors from OIKONET organizations follow work of the students’ groups
3.5.4 FRIDAY, 5 June 2015

The workshop finished with an exhibition and final presentation of the work produced by the teams of students. Additionally, each student group produced an A1 poster summarizing the work and uploaded them onto the OIKODOMOS Workspaces and the workshop blog.

Figure 12. Design Studio: Final presentation session

3.5.5 SATURDAY, 6 June 2015

Saturday morning students and tutors met for the last time to discuss the positive and the negative aspects of the workshop. Lukas Staudinger (BTU) and Nikolai Steinø (AAU) moderated the discussion.

4 Final Proposals

The works presented by the groups of students at the end of workshop are presented next.

4.1 Berlin Group 1: Densifying Berlin

Students: Nathalie Ventura (LA SALLE), Alena Tundérová (FASTU), Clara Van Geel (KUL), Simon Büscher (BTU), Mikkel Trudslev (AAU)

Developing strategies to deal with the increasing demand for housing and locating them in on a specific site in Berlin. The group chose the strategy of densification in particular inner-city areas. The students identified areas occupied by infrastructures (Stadtbahn – Ring) as potential sites for their proposal. By covering up low laying train tracks and highways it would be possible to create new living spaces and also improve the connectivity of the neighbouring and formerly marginal quarters alike.
4.2 Berlin Group 2: The Virus City

Students: Valia Anagnostopoulou (UTH), Dorota Maskal (UCLAN), Valentin Revillet (UGA), Mustafa OZDEMIR (GTU), Joana Alves (ISCTE)

The group proposed a micro module in four versions, which can be added to existing structures (and expand as a virus) according to the needs of the user, the society and the urban context. They proposed specific sites as well as different ways of adapting the modules to existing buildings.
What is the virus?
The latest development of the cancer research providing the treatment to patients by injecting them with a virus to target the affected area became a key factor to our project.

The virus spread

We are using the “Virus” in the form of four different types of prefabricated housing modules to “hit” the central axes of Berlin-Mitte in order to initiate an immediate and lasting urban densification through a modularized 3D structure that is adaptable, multifunctional, connectable and integrative.

4.3 Berlin Group 4: Creating Patterns of Improvement

Students: Andrea Tusell (LA SALLE), Saman Hariri (KUL), Philipp Goelsdorf (BTU), Dimitra Patra (UTH), Barbora Feriancová (FASTU)

The goal is to initiate an immediate and lasting urban densification through a modularized 3D structure that is adaptable, multifunctional, connectable and integrative.
4.4 Berlin Group 5: In Between Spaces

Students: Anna Sophie Bresson (AAU), Konstantinos Chatzimanolis (UCY), Ali Ahmed (UCLan), Larissa Correia (UGA)

A rather small but radical intervention was proposed by this group: they suggested opening the private green spaces inside the Kreuzberg “Blockstruktur” to make them public. This would enable housing developments in public green spaces such as parks.
4.5 Berlin Group 6: River Connection

Students: Rita Mansinho (ISCTE), Marcin Kaminski (BUT), Ward James (DIT), Ayse Tugce Pinar (ITU)

Students identified the river Spree as a location for urban densification. The proposal goes beyond the strategy of waterfront redevelopment to propose a partial covering up the river with housing buildings.

Figure 17. Berlin: “River Connection”
4.6 Cottbus Group 1: Spree_Nking City

Students: Pol Puncernau (LA SALLE), Adeline Thys (KUL), Frank Buchta (BTU), Penny Poulou (UTH), Mike Yosief (UCLan)

The students basically followed the planning strategies of the city of Cottbus: the realignment of the city eastwards to the newly created Ostsee lake. However, by physically connecting the lake with the river Spree their proposal goes even further as it would improve connectivity and add more inner city recreation areas.

![Figure 18. Cottbus: Spree_nking City](image)

4.7 Cottbus Group 2: Cottbus Accepting and Adapting

Students: Justine Gaillard (UGA), Rumeysa Zeynep (GTU), Rafal Trzeszczkowski (BUT), Brown Jessy (DIT), Tayfun Saman (ITU)

This work proposes to focus on the Ostsee lake east of Cottbus to carry out massive urban transformations to improve the liveability of the city. The students focused less on housing interventions and more on providing planning strategies.
4.8 Cottbus Group 3: The Univer-City

Students: Alexandre Garcia Estelles (ETSA-UPV), Nadja Seefelder (BTU), Ioanna Demetriou (UCY), Catarina Mateus (ISCTE), Sedanur Albayrak (ITU)

The students proposed an overall qualitative improvement of Cottbus’ cityscapes and public spaces in order to increase the city’s quality of life and thus make it more attractive for potential new residents.

4.9 Cottbus Group 4: Start-Up-City

Students: Alperen Alan (ITU), Josep García (LA SALLE), Maciej Sidorowicz (KUL), Anne-Sofie Sørensen (AAU), Bligh Maire-Claire (DIT)

This group proposed to enhance the train connection between Berlin and Cottbus. Moreover, the connection between the BTU university campus and the Cottbus station should be
strengthened to attract students and young entrepreneurs, as rents in Cottbus are more affordable than in Berlin. The city of Cottbus would therefore benefit from an active and innovative start-up scene, which would attract new population in the long run.

4.10 Cottbus Group 5: Cottbus Green Boulevard

Students: Ana Maria Sánchez (ETSA-UPV), Johannes Dübner (BTU), O’Donnell Orla (DIT), Araf Oyku Turken (GTU)

Based on their own analysis of the current state of the urban space in Cottbus, the students sought to improve the situation implementing a series of small and medium scale interventions.

Figure 22. Cottbus: “Cottbus Green Boulevard”
4.11 Comments from tutors

During the workshop, tutors made general comments in situ about the proposals presented by each group. The comments were afterwards shared with the students in the final evaluation done in OIKODOMOS Workspaces.

4.11.1 BERLIN GROUP 1: Densifying Berlin

Students: Nathalie Ventura (LA SALLE), Alena Tundérová (FASTU), Clara Van Geel (KUL), Simon Büscher (BTU), Mikkel Trudslev (AAU)

- **Viera Joklova (FASTU)**. This is a very interesting proposal for the densification of the residential structure in Berlin, with a lattice superstructure built over the existing S-Bahn and highways infrastructure. The group made an excellent observation during the excursion; their proposal is based on the analysis of the square meters needed per residential unit according the number of members in the household. However, the homogeneity of the new construction is somewhat questionable since it could create a new barrier in the city. To compensate this, more landscape public spaces could be proposed to connect the existing structures.

- **Aleksander Asanowicz (BUT)**. The work addresses a very important issue which is the re-use of the abandoned communication and transport infrastructures, thus avoiding having islands in the urban territory; it is a proposition which is valuable and has great potential.

- **Vasilia Trova (UTH)**. Filling the urban gaps seems to be an obvious solution to the problem of growth. However, I have some reservations though when this approach is applied to a gap which is in use, a gap accommodating circulation which is an integral part of urban life. You have proposed open spaces in the junctions with the existing streets. This will retain the gaps in the urban street continuity. Have you considered the opposite model, densifying junctions and creating green spaces in between? Anyway, considering the time limit, you have done an excellent work.

- **Yasemin Alkiser Bregger (ITU)**. I like the idea of using the top of the highway and S-Bahn axis as a residential area in order to gain residential space in the city of Berlin. Proposing such a huge and hi-tech mega structures requires a more in-depth analysis concerning avoiding air pollution on the highway and using more innovative construction systems. It would be more useful if we had known how many people could be settled on the highway-line considering the estimated city population for the near and far future. I agree with the idea that this residential axis will help to integrate the neighbourhoods at both sides of the highway. In the high-rise and long structures, vertical and horizontal circulation systems should be designed as flexible, adaptable and repeatable system elements.

- **Noel Brady (DIT)**. This proposal has a wonderful potential especially since it is linked to a transport element that could deliver the new building elements. A bit more thought could have been made into how this aspect of delivering the system as well as building it would be integrated.
4.11.2 BERLIN GROUP 2: The Virus City

Students: Valia Anagnostopoulou (UTH), Dorota Maskal (UCLAN), Valentin Revillet (UGA), Mustafa OZDEMIR (GTU), Joana Alves (ISCTE)

- Angel Martin (La Salle). Your proposal is more a strategy for occupation than an architectural or urban project. As a strategy it seems an interesting option in specific situations but probably not feasible for a large number of housing units, don’t you think? Nevertheless, it is hard to evaluate your proposal without analysing in more detail the quality of living, access, implementation, organization, etc. There are interesting precedents for your approach, as in the work of the Spanish architect Santiago Cirugeda. I am sending here a link to his web: http://www.recetasurbanas.net/

- Aleksander Asanowicz (BUT). The metaphor used seems to be not relevant, as virus suggests the development of the disease. However, the work emphasizes the need for unconventional architectural solutions to address the issue of intensive growth in some cities.

4.11.3 BERLIN GROUP 4: Creating Patterns of Improvement

Students: Andrea Tusell (LA SALLE), Saman Hariri (KUL), Philipp Goelsdorf (BTU), Dimitra Patra (UTH), Barbora Feriancová (FASTU)

- Adam Jakimowicz (BUT). For the person who was not attending the live presentation, the poster is not completely clear - it is missing some essential information to understand the proposal. Assuming that it relates to the potential possibility of filling the empty areas within the cities - I hope I am right - the proposal is interesting, although it recalls the proposals in the 1960's by Yona Friedman or the Japanese metabolists.

- Sergio Castelló (ETSA-UPV). The proposal of new patches in city gaps as informal and modular matrix works quite well in the sense of being adaptable for varied densities and it can be replaced over time. Perhaps, it lacks some clarity in the multiplication of walkways, both at ground floor or in the skywalks, which could generate an economically inefficient and unsafe system of circulation.

- Noel Brady (DIT). The density of this approach appears quite low for a project that aims to "densify" the heart of the city with a new development. A much denser system of 3d mat building might have yielded more conclusive results (see Habitat in Montreal, for example).

- Yasemin Alkiser Bregger (ITU). Your model is a good first attempt but it should have been developed further to be more effective. You could have proposed a construction system and consider their environmental impact.

4.11.4 BERLIN GROUP 1: In Between Spaces

Students: Anna Sophie Bresson (AAU), Konstantinos Chatzimanolis (UCY), Ali Ahmed (UCLan), Larissa Correia (UGA)

- Carla Sentieri (ETSA-UPV). Congratulations for your work and thank you for sharing it here. I am a teacher from Valencia and I have not been at the workshop. It is very interesting
your intention to open up the private green spaces to the public space. I miss somehow the strategies for doing it. Are these spaces separated from the street with fences or something similar? The drawings are clear and explain your intentions well. Good work!

- Adam Evans (UCLan). Well done, the poster looks good. I think that your strategy to address the unsafe non-space of the dead end, the singular enclosed route and the vacancy we experience in these transient urban circulation spaces is great. To open up the buildings and provide a formal relationship between courtyard, concourse and building line is a good one. Your underpinning of this theoretically by drawing from Marc Augé is also strong. The questioning of hierarchy of infrastructure is also interesting and this would be great to explore more in the future. Your section with green infills and smaller external spaces on varying levels reminds me of some of Emilio Ambasz’s early projects. I wonder what you imagine happening in these spaces, and are they linked somehow or completely private?

4.11.5 BERLIN GROUP 6: Water Connection

Students: Rita Mansinho (ISCTE), Marcin Kaminski (BUT), Ward James (DIT), Ayse Tugce Pinar (ITU)

- Carla Sentieri (ETSA-UPV). Congratulations. When I have seen your presentation, my first question has been: why do you want to cover the river with these units? What are these units for? Are they private or public spaces? It is difficult to understand because when you open the file you can see it very small or very big so you cannot follow the explanation easily. Could you explain it here to me? I would be very grateful. Thank you for your work.

4.11.6 COTTBUS GROUP 1: Spree_Nking City

Students: Pol Puncernau (LA SALLE), Adeline Thys (KUL), Frank Buchta (BTU), Penny Pouliou (UTH), Mike Yosi (UCLan)

- Noel Brady (DIT). This is an important approach, emphasizing the connection between an element of geography and landscape. Once identified more work could have been done on the anchor elements along the route of the water. One of the sites might generate a task in later work of the research project.

- Viera Joklova (FASTU). The proposal is based on very useful analyses of Cottbus city districts and proposes the valuable concept of increasing the attractiveness and liveability by emphasizing the water element, including extensive leisure area in the North-East of the lake. The presentation includes very nice graphics, but I miss some texts describing your concept properly to others (e.g. what the orange zone stands for, what is your plan with abandoned area, etc.).

- Vasilia Trova (UTH). You are proposing two tactics for dealing with shrinkage and growth. The first refers to the demolition of a part of the city and the second to the creation of a recreation lake and canal in the vacant area. Your method of recognizing and connecting the various resources of the city (university campus, historic centre, etc.) is strong and valuable. Plans, maps, diagrams are very good and clear but I do miss some text which would explain your intentions. Exceptional work considering the short time.
4.11.7 COTTBUS GROUP 2: Cottbus Accepting and Adapting

Students: Justine Gaillard (UGA), Rumeysa Zeynep (GTU), Rafał Trzeszczkowski (BUT), Brown Jessy (DIT), Tayfun Saman (ITU)

- Angel Martin (LA SALLE). In my opinion, a positive aspect of your proposal is that you are focusing all efforts on a transformation of a certain area of the city (between the lake and the city) which will affect the totality of the city. In addition, the idea of linking this area to a certain productive work seems reasonable and shows that you are aware of the complexity of this kind of transformation. Nevertheless, I also find there are still very important unsolved issues missing on your presentation (the housing transformation, for instance).

4.11.8 COTTBUS GROUP 3: The Univer-City

Students: Alexandre Garcia Estelles (ETSA-UPV), Nadja Seefelder (BTU), Ioanna Demetriou (UCY), Catarina Mateus (ISCTE), Sedanur Albayrak (ITU)

- Carla Sentieri (ETSA-UPV). Congratulations for your presentation. You explain the intentions very well for someone who has not been in the workshop. Your panel starts with an analysis of the problems and follows with the solutions, from the large scale to the domestic scale. Just one recommendation: for the plan of the city, where you explain where the lake, the river, etc., are, if you had used different colours instead of different tones, it would have been more readable.

- Angel Martin (LA SALLE). I agree with Carla about the quality of your drawings and the explanations. Also, I think there is a potential for the idea of increasing the presence of the university life into the city. However, this depends on external factors out of our control as planners. I understand that the kind of ‘insertions’ you are proposing could be a possible strategy to trigger a transformation process, although I miss somehow a stronger and more imaginative vision about the future of the city.

4.11.9 COTTBUS GROUP 4: Start-Up-City

Students: Alperen Alan (ITU), Josep García (LA SALLE), Maciej Sidorowicz (KUL), Anne-Sofie Sørensen (AAU), Bligh Maire-Claire (DIT)

- Angel Martin (LA SALLE). In my opinion, your proposal is trying to find answers to Cottbus’ shrinkage taking into account different aspects, from sociological to economic factors. At the same time, you are proposing concrete architectural and urban interventions (e.g. the renewal of the old building stock, the change on the orientation of the city train station, etc.). Altogether, yours is an intelligent and interesting approach to solving the problems you deal with, although it seems more convincing in the theoretical part than in the graphic expression.

- Adam Jakimowicz (BUT). Quite nice design proposal, but at the same time narrow in the scope.

- Viera Joklova (FASTU). I totally agree with the comment of Angel Martin Cojo
4.11.10 COTTBUS GROUP 5: Cottbus Green Boulevard

Students: Ana Maria Sánchez (ETSA-UPV), Johannes Dübner (BTU), O’Donnell Orla (DIT), Araf Oyku Turken (GTU)

- Vasilia Trova (UTH). It is a great proposal to focus on the power of connections. You try to connect what you consider valuable resources (university, the river and the lake, the historic city) to create a network which will support each component. Networks are powerful as they are able to create dynamics. In Cottbus, these various components tend to function separately. Students in the campus, aged tourists in the historic city, locals along the river, etc. Your proposal helps to envision a possible background for future growth. Well done.

- Aleksander Asanowicz (BUT). Besides the nice idea to make Cottbus a university city, the work puts shrinkage in value as it is considered a chance to improve the quality of life for the remaining inhabitants. In the end, improving the city’s life quality will make it more attractive to new residents.

- Viera Joklova (FASTU). It is a very conceptual proposal, trying firstly to identify problems of shrinkage and then to look for the possible solutions and visions. Also, it is exceptionally well represented. Nice work!
5 DISSEMINATION

The aim was to spread the Cottbus workshop results to a large and wide number of actors who would be potentially interested in the outcomes. The target groups were professors, master students, policy makers and the public.

5.1.1 Cottbus workshop exhibition

All of the student works done during the workshop week were shown in an exhibition in the studio spaces on June 15-16, 2015. The groups set up their own ‘booths’ including drawings, texts, models, diagrams, images, etc. to explain their ideas for both shrinking and growing scenarios. Besides, the documents were uploaded onto the workshop blog. The exhibition was open to the public and was combined with a final outdoor party in the adjacent courtyard.

5.2 Blog

The workshop blog4 was used to announce the workshop, to communicate the activities carried out and to disseminate the results. It contained information about the workshop topic and program, tasks, timetable, participants and teams. Moreover, it was also used by the students to upload their final results and by the teachers to comment on the projects.

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4 http://oikonet-cottbusworkshop.blogspot.com.es/
5.3 Facebook

To support instantaneous communication, and to facilitate the collaboration and discussion during the workshop, a Facebook group was set up. Both students and teachers alike used this tool in order to share important and often urgent information among all the participants. It was used to share pictures (excursions, bike tour, Berlin day trip) and for socializing.
Figure 25: Facebook group of the Cottbus Workshop
6 CONCLUSIONS

The work carried out in the Cottbus workshop helped to understand the two opposing concepts of growth and shrinkage in global urban environments. The ideas, strategies and concepts developed by the students throughout the workshop helped to gain a deeper insight into the topic and to envision possible architectural and urban design implications.

Methodologically, the workshop followed a clear path: researching on the issue at stake, identifying areas where the problem is manifested, and proposing solutions which could be easily replicated to other locations. Since half of the groups dealt with the issue of growth and the other half with shrinkage, it was possible to compare very different approaches for the possible futures of the two urban areas, Berlin and Cottbus.
7 Appendix A: Evaluation

Students and tutors evaluated the workshop. Stefano Tardini and Anna Picco-Schwendener, from USI, carried out a quality evaluation. At the end of the workshop, the students had the opportunity to respond to a questionnaire in situ. The feedback of tutors was collected through an online questionnaire (14 respondents) and through some semi-structured interviews that were run in the last days of the workshop (8 interviews). The results have been reported in Deliverable 6.3 – Evaluation of learning activities (see D6.3, Section 4).

7.1 Questionnaire

A paper questionnaire with 40 questions was handed out to the students participating in the Cottbus workshop in the afternoon of the penultimate day of the workshop. 51 students out of 52 answered the questionnaire and handed it back. This corresponds to a response rate of 98.1%.

The questionnaire was divided into the following four sections: A) Participant Information, B) Learning Experience as a whole, C) Focus on Pre-Workshop Activities and D) Focus on actual Workshop in Cottbus.

The following categories were established as answers for the questions: A = Fully agree, B = Agree, C = Disagree, D = Fully disagree, N/A = Not Applicable.

7.2 Participant information

Students from 15 higher education institutions participated in the workshop in Cottbus. Each institution sent between 2 (FASTU & University of Cyprus) and 6 (BTU) students.

Table 1. Number of students by institution

<table>
<thead>
<tr>
<th>Institution</th>
<th>Nr. of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTU Cottbus</td>
<td>6</td>
</tr>
<tr>
<td>ITU - Istanbul Technical University</td>
<td>3</td>
</tr>
<tr>
<td>DIT - Dublin Institute of Technology</td>
<td>3</td>
</tr>
<tr>
<td>La Salle Barcelona</td>
<td>2</td>
</tr>
<tr>
<td>UTH - University of Thessaly</td>
<td>5</td>
</tr>
<tr>
<td>UCLAN - University of Central Lancashire</td>
<td>2</td>
</tr>
<tr>
<td>KU Leuven - LUCA</td>
<td>2</td>
</tr>
<tr>
<td>IUG - Institut d'Urbanism de Grenoble</td>
<td>4</td>
</tr>
<tr>
<td>ISCTE - IUL</td>
<td>5</td>
</tr>
<tr>
<td>GTU - Gebze Technical University</td>
<td>1</td>
</tr>
<tr>
<td>ETS - Valencia</td>
<td>1</td>
</tr>
<tr>
<td>BUT - Bialystok University of Technology</td>
<td>3</td>
</tr>
<tr>
<td>AUE - Aalborg University</td>
<td>1</td>
</tr>
<tr>
<td>University of Cyprus</td>
<td>1</td>
</tr>
<tr>
<td>FASTU</td>
<td>1</td>
</tr>
</tbody>
</table>

The participating students come from 14 different nations, mainly from the same country as their institutions. Turkey (8 students) and Spain (7 students) were the most represented countries, as each of them had two participating institutions. 6 institutions brought both Master and Bachelor students whereas 6 only brought Bachelor students and 3 only Master students. In total 2/3 (66.6%) of the participants were Bachelor students and 1/3 (33.3%) were Master...
students. Most participating students were between their 2nd and 5th year of study. Only 4 1st year students and 3 6th year students participated.

Slightly more female students (56.9%) than male students (43.1%) participated in the workshop.

As far as language is concerned, a majority of students stated that they have a good (41.2%) or very good (21.6%) level of English and 15.7% declared to be native English speaking. However, 21.6% stated to have only a very basic knowledge of the English language.

### 7.3 Learning experiences as a whole

#### 7.3.1 Students’ expectations

45 students described their expectation towards the pre-workshop and workshop activities.

![Table 2. Students’ expectations](image)

The two main expectations mentioned by the students are collaborating with other students (25) and working in an international environment (21). They expected to meet students, teachers and architects from other countries and to work in groups with them, share knowledge and experiences, discuss ideas and learn about different ways of working and approaching a problem. They expected to work in a multicultural learning environment, which would allow them getting insight on how other institutions approach a problem and on how they deal with design processes.

15 students mentioned topic related expectations, such as learning about the concepts of growth and shrinkage of cities, familiarisation with urban planning concepts and, more specifically, with large scale urban planning strategies, and various design processes.

6 students expected to learn how to approach a real urban project of a city, to understand its problems and think about possible strategies to solve them by mapping and making sketches of them. 5 students also expected to discover and visit the two cities Berlin and Cottbus and to understand them better through mapping and sketches. 1 student expected to improve her/his English during the workshop and another hoped to work and have fun at the same time.

64% of the respondents stated that their expectations have been fully met (52%) or that they have even been exceeded (12%). Only 4% declared that their expectations were only partially
met. Some felt that a one-day excursion to Berlin was not enough to understand the city and expected the design process to last more days. In general, they found that the workshop was very helpful to understand the concepts of growth and shrinkage, even though the topic was a bit broad to be studied in such a short time. Furthermore, they were positively surprised by the pleasant working atmosphere, which favoured learning and developing ideas.

7.3.2 Learning outcomes

When asked whether they were clear about the competences or learning outcomes to be gained from participating in this learning experience from the beginning, most students agreed (54.3%) or fully agreed (13%). However, 32.2% did not agree. Some felt that at the beginning it was not clear what was expected from them (especially regarding the final project), but as the workshop went along it became clearer.

The following three learning outcomes have been defined before the start of the Pre-Workshop activities:

- Being able to describe urban growth and shrinkage from a multidisciplinary point of view
- Being able to analyse patterns of urban densification and reduction
- Being able to design and evaluate housing models and strategies for densification / reduction for the cities of Berlin and Cottbus

Students were asked how well they felt they had achieved these learning outcomes. As can be seen from the graph below, they felt they had comfortably achieved all three learning outcomes.

<table>
<thead>
<tr>
<th>Achievement of Learning Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Describe urban growth and shrinkage from a multidisciplinary point of view</td>
</tr>
<tr>
<td>2) Analyse patterns of urban densification and reduction</td>
</tr>
<tr>
<td>3) Design and evaluate housing models and strategies for densification / reduction for Berlin and Cottbus</td>
</tr>
</tbody>
</table>

Table 3. Achievement of Learning Outcomes

When asked about the most important or interesting learning of the whole workshop, they mentioned the following aspects:
They learned a lot about the concepts of growth and shrinkage. Some students, for example, did not know that shrinkage could be a serious problem for a city and found it interesting to see how the city of Cottbus is dealing with it. They appreciated to see different solutions proposed by the different groups for approaching growth and shrinkage. Some realized that the two aspects do not necessarily mean a problem for a city, but that with good strategies they can even be an opportunity for them.

Many students mentioned that working together with students and teachers from other countries and cultures was an enriching experience. They learned a lot from working in groups, discussing different ideas on the topics and working together towards a solution. Furthermore, they learned a lot about the two cities Berlin and Cottbus, both through the actual visits and the study of maps and additional information. Some found it particularly interesting to work and design on large scale (city scale) and some highlighted the importance of understanding the social dynamics and social integration for urban planning.

One student particularly liked the “Nick Index”, explained during a plenary session by a teacher, another one appreciated to have to design a whole project in a very short time and one mentioned the “blender” program.
7.3.3 Use of technology

The most used tools were clearly Google Maps, Earth, Street View and similar (100%), together with other Internet search tools (86.3%). Students declared to have used the OIKONET Facebook group frequently, while only very few students regularly used the Workshop blog (17.6%). One student noted that he/she has never been on the blog as there were already enough other tools. Only half of the students (49%) stated to have used the Workspace “Contemporary Living Patterns: Growth & Shrinkage” with a high or very high frequency.

Students mentioned having used also other tools, such as Adobe Connect, AutoCAD, Photoshop, 3DS, Blender, Dropbox, books on urban planning, WhatsApp, and photos taken during the city trips.

76.5% of the students considered that by using the tools they were able to access enough information to prepare for and work efficiently during the Cottbus workshop. The remaining 23.5% did not agree. Some thought it was difficult to find information and maps about Cottbus. They would have appreciated additional and up-to-date maps (especially large ones and AutoCAD maps) and development plans of the cities. Furthermore, most information they found about the two cities was in German and not in English, and thus it was difficult for them to access and understand it. However, other students pointed out that the literature provided to them in OIKODOMOS Workspaces was very useful and the available communication tools very helpful to learn and analyse the area.

7.3.4 Comments and feedback on outputs of pre-workshop activities

Nearly half of the students (49%) received some comments on their pre-workshop outcomes online in the OIKODOMOS Workspaces and 60.4% received some feedback after they presented their outputs on the first day of the workshop. In general, comments were appreciated; they provided the students helpful information, presented them different point of views and made them reflect on the topic. They also got to know examples on housing and learned the value of a well-structured presentation. However, 2 students stated that they had not yet read the comments received on the Workspaces. For another student the comments were too different among each other to be useful and for one they were more a compliment than a constructive
feedback.

**Table 6: Comments on outcomes of Pre-Workshop activities**

44 students wrote a comment about what they liked and 36 about what could have been done better. The graph below shows the issues that emerged together because some aspects had both positive and negative comments.

**7.3.5 Likes & dislikes**

- **Having fun activities as part of the educational experience** (13 respondents)
Students appreciated that the organization had also thought about social life. They enjoyed the warm-up party on the first evening and the barbecue on the second evening. They liked the fact that everything started up slowly by visiting the cities so that students could get to know each other. Furthermore, they enjoyed the pleasant and relaxed atmosphere, which still allowed them to work hard.

- **Visits of Cottbus & Berlin** (12 resp.) / **Visits of Cottbus & Berlin** (11 resp.)
  - In general, the students liked the idea of visiting Berlin and Cottbus and they particularly enjoyed the bike ride to explore Cottbus. However, they had several suggestions on how the site visits could have been improved. For example, they regretted that the visit to Berlin was nearly exclusively made by bus. They would have preferred to focus on some sites in Berlin and being able to visit those properly. They had the impression that the visits were not very well organized and that they were rushed. To overcome this issue, one student suggested that each student should only visit the site he/she is working on. Some would have liked also to see the touristic parts of the cities, whereas another student would have preferred to have more time for working than for visiting the cities.

- **Group work** (8 resp.)
  - The students liked the group activities and particularly appreciated the mixture of nationalities within each group. This allowed them to exchange ideas with each other, learn about different approaches and ways of working and to work together towards a common final project. One student liked that the group tasks were well coordinated by the group leader.

- **Tutoring Sessions** (8 resp.) / **Tutoring Sessions** (1 resp.)
  - The students appreciated the tutoring sessions. They liked that the different tutors rotated and changed groups. This allowed them to collect different opinions and point of views on their project. Only one student stated that having always different tutors was a bit confusing for her/him.

- **Good relation between students & teachers** (7 resp.)
  - Students particularly appreciated the exchange with the teachers. They perceived the staff and tutors as friendly and easily approachable, and stated that some “cool” relationships between students and teachers had been created. There was also a good feeling among the students themselves leading to constructive exchange among them.

- **Organization** (7 resp.) / **Organization** (1 resp.)
  - The majority of students were very happy about how the workshop was organized. They praised the organization of the program before, during and after the workshop. Only one student did not like the organization but did not provide any further explanation on the reasons for it.

- **Intercultural Experience** (4 resp.)
  - Students liked to meet and interact with students and teachers from other countries and cultures. They found this was enriching their learning experience as they could learn about different approaches and exchange ideas.

- **Facilities** (3 resp.) / **Facilities** (12 resp.)
  - 3 students were positively satisfied with the provided facilities. They liked the open working areas and were happy with the university facilities. On the other hand, 12 students were not satisfied with the university facilities. First, they missed easy access...
to an A1 printer and to plotters. For them it would have been useful to have at least an A3 colour printer in the studio. To print they always had to go to other buildings. Some students complained about the poor Internet connection and 2 students expected to have free tea/coffee/water for all participants (they thought this was standard nowadays). Finally, one student suggested to make the working places a bit more attractive for example by providing some music.

- **Other Likes** (8 resp.)
  - 2 students liked the Pre-Workshop activities and considered them absolutely necessary to be able to face the workshop, 2 students liked the teachers’ presentations and 2 in general liked the topic of the workshop. One student mentioned the blog and one learning about Berlin & Cottbus planning.

- **Not enough time** (8 resp.)
  - Students would have appreciated having some more days to work on their project. Some suggested making it 2 weeks, others would have just extended it by 1 or 2 days. In particular, they mentioned the pre-workshop and suggested starting with its activities earlier in order to allow for more preparation before the workshop and to get acquainted with the topic. Many students had their exams during the period of the pre-workshop, so they could not follow it as much as they would have wished.
  - However, when asked whether they had enough time to do their work, answers were quite balanced (n=50). Some mentioned that they did not have enough time to develop their ideas, whereas others thought that there is always something to add or change and that an architect is never 100% satisfied with the final project because s/he always wants to add something more.

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<tr>
<th>I had enough time to do the work</th>
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<tr>
<td>Fully Disagree</td>
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<td>24,0%</td>
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*Table 8: I had enough time to do the work*

- **1st day presentations** (4 resp.)
  - 4 students mentioned that they did not like the first day presentations (especially those about the outputs of the pre-workshop activities). They considered them too long and repetitive, as each group talked more or less about the same. In general, they had the impression that they received too much information on the 1st day, all together.

- **Financial aspects** (4 resp.)
4 students mentioned that they had not expected so many additional costs. For example, they would have appreciated it if the bus trip had been included and if free coffee, tea and water had been available. 1 student expected cheaper accommodation for students.

- **More detailed information** (3 resp.)
  - Students expected a more detailed brief with clearly defined goals and outputs, more orientation on how to achieve the project in only 3 days and what kind of final project was expected from them. 1 student mentioned that the learning outcomes were first presented to them on the bus on the way back from Berlin.

- **Other dislikes** (7 resp.)
  - The following aspects to be improved were mentioned by one student each: clearer webpage, more time for conferences, more communication, more social activities, more mixed days: e.g., studio in the morning and activity such as lecture or bike ride after lunch, and everybody should speak English well enough to communicate with the other.

When asked whether their learning experience as a whole was positive, almost all students agreed (45.1%) or fully agreed (51%). Students were glad that they attended the workshop and considered it as a very rich experience.

96.1% of the students think that it is worth repeating the learning experience in the future, and some would even like to participate again. They only suggested not putting it in the middle of the exam period.

### 7.4 Pre-Workshop Activities

Before the workshop in Cottbus, students were asked to carry out some preparatory activities on the online learning environment OIKODOMOS Workspace “Contemporary Living Patterns: Growth / Shrinkage”. In this part of the questionnaire, students were asked questions about the tasks defined in the learning environment, the materials provided through it and the training received to use it efficiently. Furthermore, they were asked about their interaction with other students / teachers before the workshop.
7.4.1 Tasks in the Workspace “Contemporary Living Patterns: Growth / Shrinkage”

84% of the students agreed that the task-based structure of the Workspaces offered a coherent way of learning, 82% of them said that the sequence of tasks and learning activities was meaningful to them and 71.4% that the tasks and learning activities were relevant and clear. However, for some students, the tasks were not always clear and they had difficulties in understanding what to do and to write. Some said that there were different descriptions of the tasks and that they were too short. As a result, they just improvised something. One student also mentioned that it was not clear to her/him how the groups would be formed and how the work should be divided.

7.4.2 Materials provided through Workspaces

80% of the students agreed that the materials provided to them through the Workspace “Contemporary Living Patterns: Growth & Shrinkage” were useful. Nevertheless, only about half of them (48%) also read the materials provided to them. This is probably because many students were doing exams when the pre-workshop activities took place, and thus they did not have enough time to do it. In general, they liked the documents. Only one student found them
a bit difficult to read and one would have liked a few more lectures comparing Cottbus with Berlin.

### 7.4.3 Training On Workspace Use – Interaction Among Students / Teachers

#### TRAINING & INTERACTION

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<tr>
<td>I got enough training to work efficiently with the learning environment of the workspace</td>
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<td>Interacting online with other students / teachers has been a good experience</td>
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#### Table 12: Training and Interaction

73.4% of the students agreed that they had received enough training to work efficiently with the learning environment of the workspace. Only one student stated that the workspace was difficult to use and not clear at all. Another one said that they always used the same things, spaces and buttons.

Only 51% of the students thought that interacting with other students / teachers had been a good experience. This is mainly because there was not much online interaction before the workshop itself. Students suggested improving interaction during pre-workshop activities by:

- Using Facebook / Facebook Group more and especially starting using it sooner. Facebook is easy to access and most students know how to use it. One student, for example, suggested creating a discussion group where students can discuss about the topics informally.
- Defining more collaborative / interactive tasks where students have to work together with the students / teachers of other universities. Some suggested creating the mixed groups already for the pre-workshop activities and keeping them the same for the workshop. In this way, students are more acquainted to each other and are motivated from the beginning to interact and collaborate.
- Providing a well-structured list of the groups and their members, so that everyone knows who is working in which group, where their group colleagues are coming from and what their names are.
- Introducing “fun tasks” to break the ice and get the ball rolling.
- Organizing the workshop during summer (July / August), so that everyone has more time to get involved without having to think about their exams.
7.5 Workshop activities and feedback

In this last section, students were asked to provide specific feedback on the workshop in Cottbus and its activities.

7.5.1 Alignment of workshop activities and theme

Most students agreed that the design studio (91.3%) and the lectures (89.8%) were well aligned with the Workshop theme. One student considered that having a lecture every morning might have been useful, as this would have enabled students to become inspired and to refocus. Another student stated that the lectures were a bit boring as they were mainly about numbers and charts. However, in general students agreed that the lectures were necessary to prepare them for the group works.

About 2/3 of the students (63.3%) also agreed that the pre-workshop activities were well aligned and integrated with the activities carried out during the workshop in Cottbus. For them the pre-workshop activities have been useful to learn what the workshop is about and to get a theoretical background on the topic. However, the other third thought that the activities could be aligned better.
7.5.2 Usefulness / helpfulness of activities

Most students agreed that the visits to Cottbus and Berlin (90%) helped their work during the workshop and that the briefing session (87.8%) made most aspects of the workshop clear. However, some objected that the tasks were not presented to them during the briefing and that as a result many students were not clear about what they had to do.

Many students (82.9%) also appreciated the social events organized during the workshop. Especially the barbecue organized on the first evening which enabled students to get to know each other. The only negative point was that, as it was on the first night, not all students had arrived and thus only part of them could attend the event.

79.6% of the students considered the tutoring session as helpful for the design studio. Some found it a bit confusing to hear many different and often opposing opinions / advices from different tutors. This resulted in too many different points of view and made it difficult to achieve a concrete goal. They thus suggested limiting the numbers of tutors to 2 or 3 per group. Tutoring sessions were most useful and appreciated during the first days, but towards the end, the students preferred to work on their project without wasting time in explaining their ideas repeatedly. 3 students mentioned that they did not have many tutoring sessions (max 3) and that always the same tutors came to them. They would have appreciated more support.

Compared to the other activities, the presentations of the pre-workshop outputs were considered less useful. Only 58.3% found them helpful. Presentations were squeezed into a very short time frame because the lectures took more time than expected. Furthermore, presentations were often too long and all on the same topic. Therefore, there was no time to discuss and comment on the works of others, making the whole session boring. Many students were a bit shy when presenting and thus the quality of their presentations was not very good. One student suggested...
that it might have been easier for them to explain their outcomes to fewer people, for example in a round table. On the other hand, the presentations provided a good overview of what the students had done during the pre-workshop.

### 7.5.3 Collaboration

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<td>Working with students/teachers from OTHER COUNTRIES was a good experience</td>
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<td>I was able to COMMUNICATE effectively with the other members of my group</td>
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*Table 15: Collaboration*

93.9% of the students liked working together with students and teachers from other countries and 83.7% of them were able to communicate effectively with the other members of their group. Collaboration was thus a chance for them to see and discuss other opinions, ideas and approaches. However, language barrier was still an issue for some students. With some students, it was difficult to communicate because they could not speak English well. This sometimes made discussions within groups hard and made it more difficult to understand some presentations.

### 7.5.4 Other aspects of the workshop: Assessment, free time, computing resources

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<td>I had enough FREE-TIME</td>
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<td>There was adequate access to COMPUTING RESOURCES</td>
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*Table 16: Assessment, Free time, Computing Resources*

76% of the students were clear about how their work would be assessed at the end of the workshop. For the other this was an issue, which was not very clear. One student said that it
changed every day and that there was no clear structure of how their outcomes would be assessed. The majority of students (72.9%) had enough free time during the workshop but only 64.6% of the students deemed that computing resources were adequate. They lacked information on Internet access (especially Wi-Fi connectivity) and on how to print. Some could not access the Internet and thus had difficulties in researching information for the projects. Furthermore, there were not enough sockets to charge laptops.