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Live Baltic Campus: Campus Areas as Labs for Participative Urban Design

Integrated Campus Development Plan

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LIVE BALTIC CAMPUS

EUROPEAN UNION
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INTRODUCTION

University of Latvia (henceforth — UL), located in Riga, Latvia, is one of the largest universities in the Baltic States. Since 2009, the university has been developing its first campus, which is also the first modern and comprehensively planned campus in Latvia. The process is a first experience both for the university and the city, and the development of a brand-new campus brings along questions on how to integrate a university previously scattered all around the city; how the campus will fit in the surrounding area; what connections — both physical and mental — with the city and the community are necessary.

The Live Baltic Campus project has been essential for the UL to better understand the social and spatial challenges that the planned relocation presents. Within the scope of the project, the UL focused on two issues closely related to the development of a new campus: cooperation within the university and with external partners and the role of university in the city and, particularly, in the area surrounding the campus. Project activities took the following two directions:

- University-Business Cooperation — a study on collaboration possibilities between the UL and industry based on the quadruple helix cooperation model was carried out by "Dynamic University" in March-October 2017, with the aim to better integrate businesses, state and municipal institutions, general public etc. in the UL campus in Tornakalns;
- Accessibility — an automated traffic flow analysis solution was used to gather traffic data from campus vicinity over a 3 months period ("4SmartStreets"); this data was further utilized in qualitative analysis of the surrounding transport infrastructure and the possible solutions to the identified problems carried out by "Didrihsons un Didrihsons" in September-December 2017.

Both studies included the analysis of the current situation in the respective areas and suggestions for further actions. **This integrated campus development plan is based on the suggestions included in both studies.** The objective of this plan is to map out the future development suggestions for the UL to ensure harmonized, integrated, inclusive and modern development of its campus in Torņakalns, considering the needs of both internal and external stakeholders.

The Live Baltic Campus project facilitated access to the experience of other Central Baltic Sea region higher education institutions in regards to sustainable development. Though not a separate branch of activities, these findings, considering the ever increasing importance of resilience and sustainable resource management aspects in the modern world, have been included in this plan as well.

The main target groups of this report are:

- top-level management and heads of administrative departments of the University of Latvia;
- UL Department of Communications and Innovation, mainly responsible for collaboration with external partners;
- UL Torņakalns Campus Development Programme;
- other administrative units of the University of Latvia, especially Department of Studies, Human Resources Department, Department of Science, and Legal Department.

This plan consists of three main sections: a section including a general description of the campus and two sections on key issues studied within the Live Baltic Campus project, each detailing future steps on one of the issues.

CAMPUS DESCRIPTION

The new University of Latvia campus in Torņakalns neighbourhood in Riga will bring together all faculties of the university previously scattered across the city. The first building of the campus, House of Nature, was constructed in 2014-2015. It houses four faculties of natural sciences with around 2500 students and 250 employees. Construction of the second building, House of Science, is currently in progress and is expected to be completed in autumn of 2018. The second building will house Faculty of Physics and Mathematics and Faculty of Medicine and six research institutes. The remaining faculties and institutes, mostly of social sciences and humanities, will relocate to the third building, House of Letters. It will be finished in 2021 and by then most of University's operations will be transferred to the new campus. After completion of the campus, the number of students and personnel is expected to reach 12'000-15'000 people.

The first building of the campus, House of Nature (© Toms Grīnbergs, UL Communications and Innovations Department)

The overall territory of the campus is estimated to be around 45'500 m^2, including green areas for recreation. In addition to education and science infrastructure, sports infrastructure, student apartments, health centre and other support facilities will be included in the campus as well. Most of them will be available not just for students, but for local community, too.

The new, modern campus is expected to ensure the university an attractive advantage in the Baltic and European study and research opportunity market. Another advantage that the University of Latvia hopes to gain from concentrating all its study and research processes on one site is the synergy potential it offers. The university counts on its centralized campus infrastructure to generate an interplay between students and researchers of different fields, institutions of public and private sector and community in general, resulting in subject-oriented, interdisciplinary research and technology transfer projects.

Potential synergies and collaborations was one of the main issues that the University of Latvia examined within the Live Baltic Campus project. The current situation regarding university's collaboration with external partners from various sectors was studied, and a roadmap for further actions to facilitate cooperation was developed. This research is the foundation for the first part of this integrated campus development plan (see Key Issue 1).

Another set of issues that the University of Latvia studied within the scope of the Live Baltic Campus project was related to how the campus physically connects to the city. Location-wise, the area is very favourable as it is near the city centre and other densely inhabited neighbourhoods of Riga. For instance, Old Riga is just a 15 min walk away right across the bridge. Currently there is one bus route passing the campus directly, and a large choice of public transport routes (buses, trams, trolleybuses) passing by the National Library of Latvia building a 6 min walk away. This busy stop includes also a bus headed to/from Riga International Airport, which is approximately a 25 min drive away. There is also Tornakalns train station 7 minutes from the campus, providing convenient connections to Riga agglomeration cities, such as Olaine, Jelgava and Jurmala. In its current phase, the campus features also a parking space for 100 cars (including 4 parking spaces for the handicapped) and 200 bicycles. Nearby the new campus of the University of Latvia several other knowledge institutions and universities are located, forming Riga's Knowledge Mile, an area where education, science and innovation facilities are concentrated.

However, despite the excellent position and the close proximity to the city centre, connectivity with the surrounding neighbourhoods is an issue: the campus area is isolated by a railway embankment from the north, a ditch (*Kīleveina grāvis*) on the east and a stretch of undeveloped land on the west and south. The ditch also separates the campus area from the much busier business/residential area between Jelgavas Street and Mūkusalas Street (the quay of River Daugava). In addition, the municipality and other stakeholders are currently planning several major infrastructure projects (the multi-modal transport hub and Rail Baltica project being the more significant ones) in direct vicinity of the campus, with potential effect on the quality of campus environment and accessibility. Therefore, the second area of research within the Live Baltic Campus project was related to physical connectivity and mobility (see Key Issue 2).
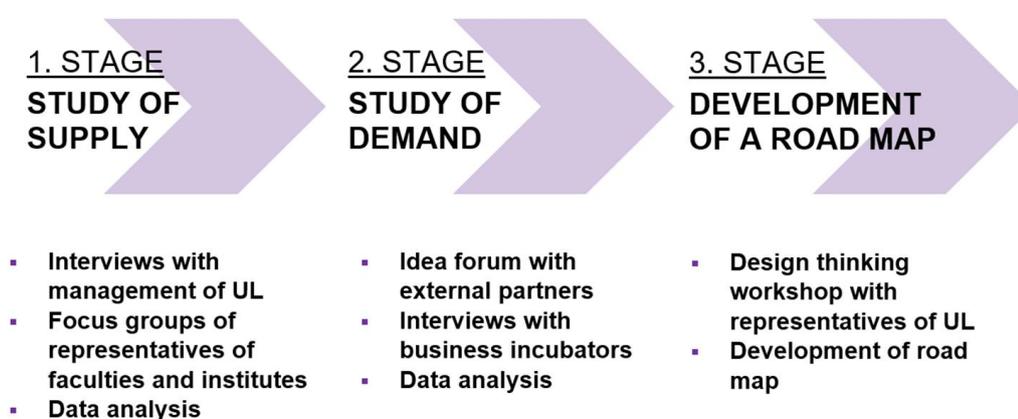
Campus buildings are designed and implemented using modern materials and technologies, with the aim to reduce operation costs and improve lab safety conditions, as well as the overall quality of the building environment. Energy-efficient solutions are preferred, with efficient LED lighting fixtures and automated heating, ventilation and cooling systems. Waste sorting is provided in the public areas of the House of Nature, with additional paper bins in the offices. However, with the future growth of the campus, it becomes increasingly important for the UL to develop an integrated strategy on sustainable resource management. This section of research was picked up as a direct consequence of the experience and expertise shared by other Live Baltic Campus project partners (especially Stockholm Resilience Centre and Uppsala University) throughout the length of the project, and definitely requires further investigation leading to an implementation plan (see Key Issue 3).

CURRENT SITUATION

The role of the universities has been changing and expanding over time, and today universities are no longer secluded institutions focusing only on teaching and research. Working closely with actors from public and private sectors, and even community in general, universities are now viewed as key players that drive innovation.

Within the Live Baltic Campus project, we explored these issues in a study on university collaboration with external partners. The objective of the study was to develop recommendations for successful and comprehensive development of cooperation between the University of Latvia and business, governmental and general public, making the new campus an inviting and synergistic co-creation space. The study consisted of three stages (see image below).

1. STAGE
STUDY OF SUPPLY

- **Interviews with management of UL**
- **Focus groups of representatives of faculties and institutes**
- **Data analysis**

2. STAGE
STUDY OF DEMAND

- **Idea forum with external partners**
- **Interviews with business incubators**
- **Data analysis**

3. STAGE
DEVELOPMENT OF A ROAD MAP

- **Design thinking workshop with representatives of UL**
- **Development of road map**

Stages of the study on collaboration with external partners (© Dynamic University Ltd)

In the first stage of the study, the supply of the university and current situation in collaboration was examined. Within this stage we identified expertise, services, products etc. that university can offer to external partners, and looked at existing collaboration links and experience. For this, interviews with management representatives of the university and focus group discussions with representatives of faculties and institutes took place, as well as analysis of quantitative data about collaboration issues.

Next, demand of collaborating with university was analysed. An idea forum for external partners (entrepreneurs, representatives of NGOs and public sector etc.) was held in September 2017. The aim was to map out good practices, problems, and obstacles the participants had experienced in current collaborations; also, to share ideas and recommendations on how to improve and strengthen collaborations. Several Latvian business incubator representatives and partner universities of Live Baltic Campus were interviewed as well to gain their insights on university collaboration with external partners.

Finally, based on the information from the stakeholders interviewed and surveyed, experience of other universities and previous studies on university-external partners' collaboration, a roadmap with suggestions for further facilitation of collaboration was developed. This roadmap forms the basis for the section of collaboration development within this integrated campus development plan (see section Further Steps).

The target audience of the roadmap and this plan is primarily the management of the university (heads of departments of Communications and Innovation, Science, Legal, Study, head of Administration, Rector's Office etc.), who are responsible for development and implementation of central policies within the university. The roadmap was presented to them in November 2017, with administration taking note of it and scheduling to discuss the possibility of integrating the suggestions in further plans.

FUTURE STEPS

Further centralize collaboration facilitation

Study on collaboration showed that there is a demand for standardized procedures regarding administrating collaboration and a central point of contact in each faculty and institute (for university staff, e.g. a single person responsible for collaboration management) and in the university as such (both for university staff and for external partners).

Currently, in each faculty and institute there are different approaches to managing collaboration, and often coordination with central departments is unclear. Harmonizing the procedures within faculties and institutes and developing standard forms for contracts and other documents related to collaboration would speed up the process of concluding cooperation agreements with external partners. It would also unburden the academic staff from administrative duties, which often takes a significant part of the time they can dedicate to collaboration projects.

Strengthening the capacity of Communications and Innovation Department (CID), developing a single point of contact in CID for external partners, and creating a group of persons responsible for collaboration management in all faculties and institutes, which would work closely with the central CID on administrating and facilitating collaboration with external partners, could improve the efficiency of already existing partnerships as well.

Define a collaboration policy

To define guidelines for collaboration, a collaboration policy of the University, based on its strategic principles, should be developed. Currently collaboration issues are integrated in the Strategy of University for 2017-2020, but a more detailed policy for facilitating collaboration — especially in the wake of most faculties relocating to the new campus — should be developed.

The policy should detail principles of collaboration with both external partners — companies, NGOs, public sector, community etc. — and internal partners, namely, cross-collaboration of faculties and institutes. Many of these issues have been discussed in the study on collaboration with external partners carried out within the Live Baltic Campus project, and suggestions included in the study could be one of the frameworks to consider for further development.

Improve internal communication

The study highlighted that often academic staff and even faculty administration representatives were not aware of existing collaboration support and motivation mechanisms already in place in the university. Therefore, a more active and clear top-down communication should be pursued in order to reach the target audience of the support measures offered (academic staff). The recently launched newsletter for university staff ("Uzzini pirmais") was mentioned as a positive example of internal communication; this should be continued.

Develop targeted and personalised external communication with partners

University should engage in a more targeted, client-oriented and at the same time personalised communication with external partners. Many of external partners surveyed within the study stated that they would appreciate and be interested in receiving regular updates, news or invites to events from the university and keep in contact even after collaboration projects have concluded. However, currently the manner of communication mostly depends on individual persons in the university who have engaged in collaboration or are looking for partners. A comprehensive list of existing and former university partners is also still being compiled.

An all-inclusive assessment of the competencies, expertise, services, research fields etc. that are held and offered by the university staff should be carried out in order to collect up-to-date information about ongoing and previous cooperation cases and potential collaboration areas. This information should be used to compile collaboration proposals for external partners. In addition, a unified list of services and expertise available at the university and their respective price should be compiled.

After compiling the information and ensuring that it will be updated on a regular basis, some of the responsibilities in communication could be handed over to CID which could ensure that collaboration partners are sent regular updates — e.g. news important to partners, holiday greetings, news about events, success stories etc.

Another important aspect that is lacking is monitoring of the satisfaction of external partners. Follow-up and gathering feedback from partners is important to further improve collaboration. Such monitoring could also be designated to CID in order to have information to follow trends in collaboration.

In communication with potential partners, some good initiatives are already in place — e.g. the University's collaboration website sadarbiba.lu.lv which includes information on possibilities to cooperate with the university, contact persons and information on successful projects, currently only in STEM. The website should be further developed to include information about social sciences and humanities and detailed information on each faculty and institute.

Create physical environment that encourages collaboration

After completion of the campus, many of its facilities will be open not only for students and staff of University of Latvia but also for the community. Even now many of the facilities, e.g. the library, conference rooms etc., are used by students from other universities, representatives of private and public sectors and NGOs, allowing them to find out more about the university and what it offers. This should be continued in the upcoming buildings as well, providing premises and infrastructure (e.g. open labs) that can be used by external partners as well. Communication should also be fostered by including kitchenettes, coffee rooms and other spaces of common use where people can meet each other and engage in conversations.

Motivate staff

Improving the motivation system of the university staff has also been identified as one of drivers for staff involvement in external collaboration. For this, aspects that motivate staff to engage in collaboration should be identified and used to improve the existing motivation system. The current

support mechanisms (rewards for successful collaboration projects etc.) for university staff should be continued and expanded to encourage engaging in partnerships.

Encourage cross-disciplinary collaboration

The University of Latvia specialises in both STEM and social sciences and humanities, which provides great potential for cross-disciplinary collaborations. There are several instances of successful collaborations already, both in STEM and social sciences and humanities, and both short and long term. By better utilizing the existing potential and building on the experiences of current and past collaborations the interplay between the university and other stakeholders could be better organised and create innovative outcomes.

Cross-disciplinary cooperation in the university should be facilitated more actively by, firstly, creating opportunities for representatives of different disciplines to meet each other and interact — this will be easier after completion of the campus — and, secondly, providing grants or other support measures for cross-disciplinary research and projects specifically. In addition, university could use its internal resources to provide lifelong learning for university staff.

Participate in national and international organisations

University representatives should also be more active in participating in national and international organisations. Currently (often due to participation fees) the participation is rather passive; however, this is a resource which could be used for networking for both academic and industry, public and non-governmental sector partners.

KEY ISSUE 2: INTEGRATED SPATIAL DEVELOPMENT OF CAMPUS AREA

CURRENT SITUATION

The location of the new campus is considered brownfield area and was previously used for allotment gardens. It is still sparsely populated, and lacks infrastructure and convenient connections to other neighbourhoods of the city. Located just 15 min away from the city centre, the area has great potential for development, but only one bus route with 20-30 min intervals currently stops at the campus. Alongside the campus of the university, several other development projects (multi-modal transport hub, Rail Baltica railway project, Mūkusala Quay project along River Daugava) are already taking place in the area and its adjacent territories, and in the future it is expected to be one of Riga's busiest neighbourhoods.

To ensure integrated future development of the area in accordance with the planning documents of local, regional, and national level, as well as safe and high quality environment for its current users, coordination between all key stakeholders is essential. Currently there is a lack of a unified vision of the territory of new Torņakalns neighbourhood centre (approx. 50-60 ha of area).

One of the most important issues for this area is mobility. It is a sector in human life which, especially in cities, takes up much of people's time and is one of the most time-consuming activities. Therefore fast, convenient connections are vital to ensure that this time is spent as effectively as possible, at the same time not putting too much stress on the urban environment and traffic.

FUTURE STEPS

Engage in dialogue with key stakeholders

Several projects are being developed simultaneously around the campus. To ensure an integrated and harmonized development of the area, communication and dialogue with key stakeholders is crucial: Riga City Council and municipal departments of Transport and City Development; "Latvian Railway" and passenger traffic operator "Pasažieru Vilciens"; "Rail Baltica" project developers; Riga public transport providers "Rīgas Satiksme"; Riga International Coach Station and others. Riga City Council is an especially important partner, and the university should cooperate with the council to define clear priorities, principles, and guidelines for development of the territory.

A working group for integrated development of the area has recently been established, with representative of university being one of the members. A unified and comprehensive development concept is hoped to be produced, as it would make it possible for the University of Latvia and Riga City Council to clearly articulate and defend their interests.

With an expected campus population of 12'000-15'000 persons upon the finishing of House of Letters in 2021, the University emerges as the major player influencing the dynamic of the neighbourhood. Considering the timeline and often unclear details of the other infrastructure projects, as well as the comprehensive analysis and participative design activities UL has already carried out during the Live Baltic Campus project, the UL is in a good position to take initiative in the dialogue developing an integrated development strategy for the campus area.

Ensure safe connections for pedestrians and cyclists

Currently the connection of the campus to other parts of the city is unsafe and not comfortable for pedestrians and cyclists. The most direct route from the city centre to the campus currently includes the railway underpass in Jelgavas Street, which is narrow and endangers the safety of pedestrians and cyclists. The section of Jelgava Street under the railway embankment should be expanded to ensure that it is safe and convenient. The underpass is not the property of the university or the city, as it is part of railway infrastructure. Therefore, collaboration between the national rail company, university and the city is necessary.

Other connections to the campus area should also be provided: a safe and functional pedestrian and bicycle connection to the Uzvaras Boulevard and Akmens Bridge; pedestrian connection with Torņakalns railway station; a crossing (pedestrian bridge) over the Kīleveina Ditch to Mūkusala area.

UL should actively insist that Riga City Council implements its initial plans regarding the bike route from centre to Ziepniekkalns neighbourhood (passing the campus), and that the new bike crossing alongside the planned Rail Baltica bridge connects with the campus and further bike routes/destinations in a safe and logical manner (cooperation with the Rail Baltica project developers).

To promote biking, the University should also provide secure and convenient bike parking on campus (close to main entrances), as well as changing/showering facilities for students and employees.

Participate in the development of the multimodal transport hub

A multimodal transport hub is being developed near the campus territory. The University should engage in discussions with Riga City Council to facilitate the development of the hub in accordance with the basic principles of transport-oriented development: multimodal centre (linear / perpendicular intersection of the public rail transport) together with a compact, human-centric, multifunctional urban environment wisely attracting private investment. At the moment the plans for the multimodal transport hub are insufficiently detailed, raising concern about its efficiency and connections with city public transport.

Deprioritize cars in the area

Currently private cars are the most effective way of getting to the campus area. At present, the cargo transit to the port of Riga and private cars account for ~ 30% of the total traffic flow through the Tornakalns area. In cooperation with Riga City Council and with reference to the Sustainable Development Strategy of Riga-2030, a competitive priority public transport infrastructure, which would also ensure the accessibility, competitiveness, and economic sustainability of the University of Latvia campus, should be developed.

Parking infrastructure on the campus should not exceed the minimum quantity requirements set by construction standards, and it should be as compact as possible, ensuring efficient use of land resources. Current experience with the parking lot of the House of Nature indicates that the minimum number of parking spaces required by national construction standards (a function from the expected number of building users) may be insufficient as the campus grows, and therefore it would be necessary to develop, in a timely manner, incentives for motivating students and employees to use public transport (paid parking, restricted access to parking permits, maximized convenience of bike and public transport use, etc.).
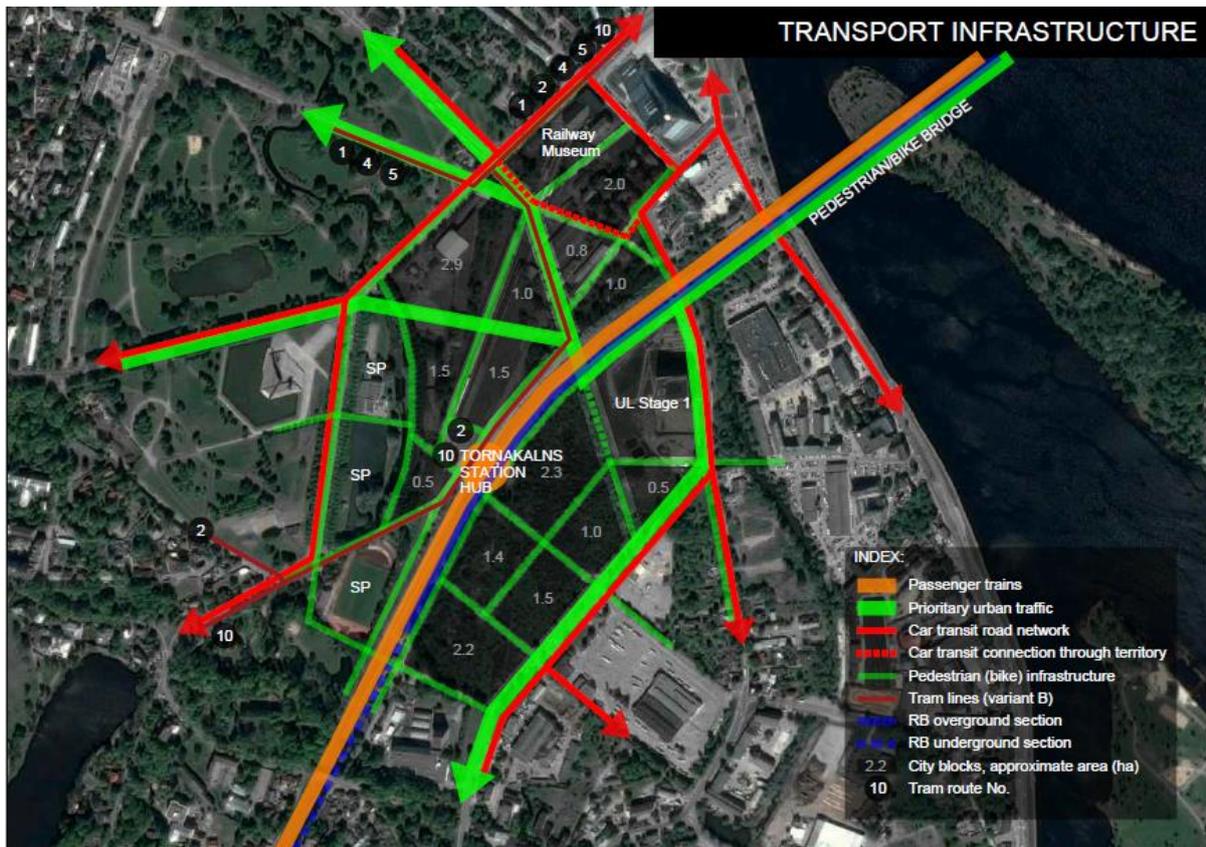
Proposal for transport infrastructure in the area (© Didrihsons un Didrihsons, 2017)

Consider scattering university functions on both sides of railway embankment

Within the scope of the mobility research carried out in the Live Baltic Campus project, experts suggest that the most sustainable solution for the area would be placing certain university functions, e.g. student dormitories or sports infrastructure, on the other side of the railway embankment, instead of concentrating everything on the same side. Such an approach would lead to integrated development of land lots on both sides of the railway, making connectivity and crossings a priority rather than an afterthought. A multifunctional development mixing academic, residential, business, recreational and sports facilities, implemented by attracting private investment, would additionally improve the quality of the urban environment of the campus territory.

As ~95% of the area near the railway embankment on the other side of it belongs to the municipality or the state, such a scenario could theoretically be negotiated and implemented, although a major redesign of the current campus plans would be required. However, considering the major changes that have taken place since the approval of the initial campus masterplan (acquisition of additional land lots for campus development, initiation of the Rail Baltica and multi-modal transport hub projects, the potential connection between Vienibas Gatve and Uzvaras Boulevard, etc.), as well as the fact that there is a shortage of available housing options for the students of Riga's Knowledge Mile, Live Baltic Campus team believes that adjustments to the initial campus masterplan would be truly beneficial to UL, the local community, business sector and other stakeholders.
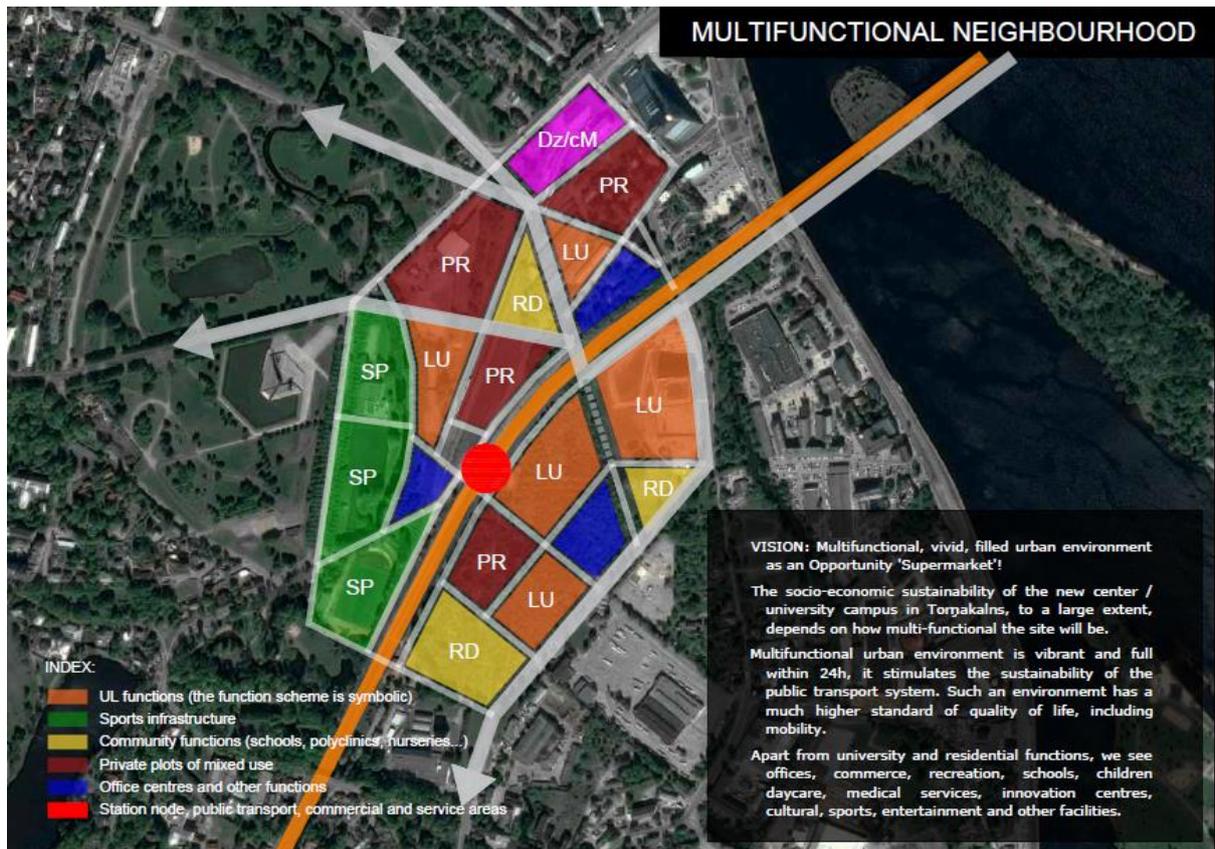
Proposal for a multifunctional neighbourhood in Tornakalns (© Didrihsons un Didrihsons, 2017)

Looking at global trends, it is evident that sustainable development (SD) is becoming an increasingly important aspect in doing business, and considering the impact higher education institutions can have on disseminating knowledge, instilling positive habits and attitudes, it is logical that the UL should acknowledge these principles and show a leading example in re-evaluating its existing practices.

SD covers a wide range of ecological and economical sustainability aspects, such as: energy efficiency of buildings, equipment and processes; usage of renewable energy, reduction of greenhouse gas emissions, prevention and management of waste, waste sorting and recycling, reduction of paper consumption; water and wastewater management; use of locally produced food products; promotion of organic and Fair Trade food; promotion of sustainable modes of transportation; access for the disabled; policies for equality and diversity, etc.

University of Latvia currently does not have a strategy or any other policy for implementing SD on its new campus and other buildings. Several energy efficient solutions have been integrated in the first building of the new campus (House of Nature): motion sensors for lighting, LED lighting in public areas, automation of climate and lighting control etc. Sorting of waste (paper, glass, PET) is ensured in the public areas of the House of Nature, and separate bins for paper are additionally provided at the offices. Some individual initiatives are carried out by students or environmental NGOs to reduce waste and encourage recycling and correct disposal of waste: reusable mugs are provided for students at the kitchenette, encouraging refusal of paper cups from coffee machines; drinking water fountains are available as alternative to bottled water at the House of Nature. Seamless integration of access solutions for the handicapped has also been implemented successfully.

However, the practice in other UL buildings varies widely and there is a lack of central policy in waste management.

A large part of the non-design related activities have been initiated by individual activists or organisations, or on an ad-hoc basis by the university. There is a lack of recognition and dedication to SD. With the new campus on the way, the university has a possibility to develop not just a new physical environment for its community, but also introduce new habits supporting SD.

Integration of SD in higher education institutions has been thoroughly researched by Prof. Rodrigo Lozano, who has developed recommendations for universities for facilitating incorporation of SD principles, as presented at the final conference of the Live Baltic Campus project.

FUTURE STEPS

Recognizing the importance of sustainable development

University top management should recognize that working towards SD is important to reduce the degradation of natural and human resources, and that the university as an institution of national importance, which shapes young minds, can play a critical role in promoting SD. This acknowledgement should be supported by continued preference for energy-efficient design solutions in the construction of the campus buildings; as well as public commitment to SD principles by joining

any of the several existing initiatives and charters declaring the role and responsibility of higher education institutions in promoting SD that have been developed in recent decades.

See additional information here:
https://www2.leuphana.de/vcse/uploads/media/Declarations_on_higher_education_and_sustainable_development.pdf

Design university policies and strategies to integrate SD in university system

For universities that have not yet incorporated SD, Lozano suggests designing university strategies and policies to holistically integrate SD throughout the university system (Lozano, 2006). More information on how to formulate dedication to SD can be found in declarations, charters, and initiatives of higher education for SD (see above).

Most importantly, involvement of university staff and students in SD should be started immediately after, so that SD does not remain just a strategic declaration lacking actual implementation. Lozano suggests some steps that could be undertaken:

1) for rapid and visible results, resource savings, recycling and green procurement should be introduced in the campus;
2) educators should be educated on the concepts, tools and approaches of SD, and changes to courses and curriculum can be made subsequently;
3) researcher coordinators should be informed about the concept and assisted in incorporating SD into their research;
4) SD can be incorporated in all outreach activities;
5) clear goals, objectives and indicators for assessment, reporting and comparison of progress with SD should be established;
6) regular reports should be compiled and used to accelerate incorporation of SD among all stakeholders in the university (Lozano, 2006).

Designate a person and/or committee to coordinate incorporation of sustainable development

To facilitate incorporation of SD into everyday life of university, a person and/or support committee responsible for planning and coordinating the SD implementation process should be designated. As Lozano puts it, the person should act as the 'champion' of the matter and should be highly motivated and skilled to educate others about SD and encourage them to participate (Lozano, 2006). The person or committee should also be supported with providing them with appropriate authority and financial means. UL has a department of environmental studies, which could be a starting point in the search for people willing to take up the role, come up with a strategy for incorporating SD and promote it within the university.

Incorporate SD in everyday life of the university

Lozano stresses that SD should not be just an abstract concept in the strategy of a university; SD should be incorporated in the day-to-day work. It is also very important that university staff and students internalize SD, viewing it as significant part of university operations, otherwise the institution will not be sustainable (Lozano, 2006).

Some ideas for informing and involving university staff and students in facilitating SD:

- a section in university website explaining the concept and listing ideas for students and staff on what to do to improve sustainability of their everyday life on and off the campus. A few examples: Stockholm University, University of Tampere, Aalto University, University of Gothenburg, University of Brighton;
- motivate students and staff to participate in recycling by organising competitive activities with good prizes, e.g. recycling competition;

At UL the implementation of an SD strategy could be performed by the Infrastructure Department, the Campus Development Programme and student parliaments in cooperation with relevant NGO's.

CONCLUSION

By building the first modern academic campus in Latvia from ground up, the University of Latvia has the fascinating opportunity to make this a truly comprehensive, integrated and thoughtful project that serves generations to come. It is expected to have a major effect not only on the academic and scientific processes of the University, but also on its external cooperation and the urban development of Torņakalns neighbourhood.

The core themes of campus design identified during the LBC project — symbiosis with the city, the ability to embrace and adapt to change; campus as a service; campus as a social meeting place; ecological and economical resilience; and extensive collaboration — are largely a product of physical infrastructure, but even more so a result of participative and inclusive service design.

For the nearest future, the issues related to the accessibility of the new campus, as well as setting up the University's collaboration with external partners on the new campus will no doubt take precedence, but looking forward to the completion of the academic buildings in 2021, it is important to plan, discuss, modify and then implement the necessary changes for better and more cohesive management of the campus.

The Live Baltic Campus project has proven the efficiency and potential of a dialogue, of participative design approach that has people talking to people, not merely a top-down approach. We foresee that in the future this trend, if utilized efficiently, will bear a multitude of productive and positive changes to Riga's Knowledge Mile and UL Campus.

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