



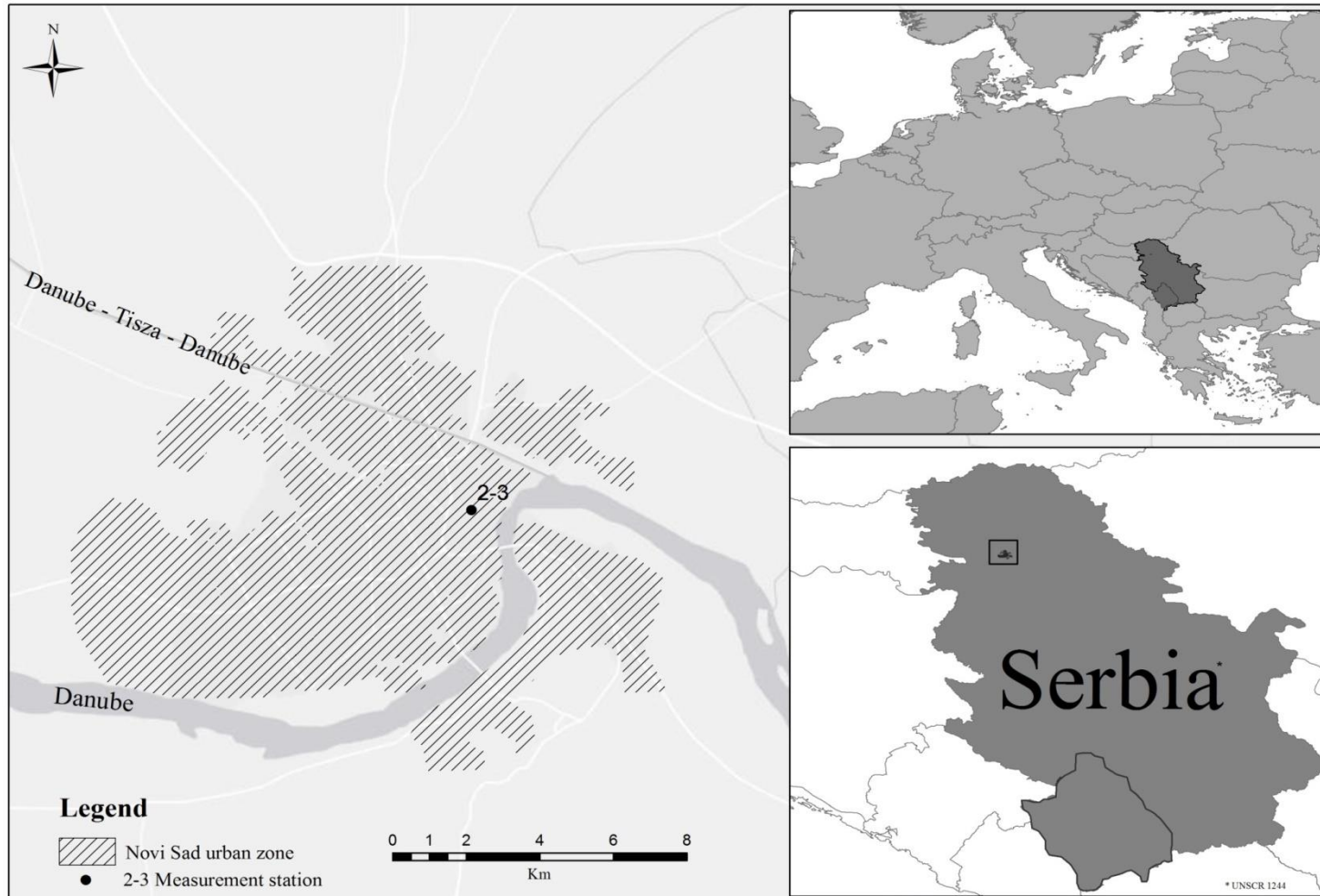
# APPLICATION OF URBAN CLIMATE RESEARCH IN NOVI SAD (SERBIA)

**Dejana Đurđević<sup>1</sup>, Stevan Savić<sup>2</sup>, Dragan Milošević<sup>2</sup>**

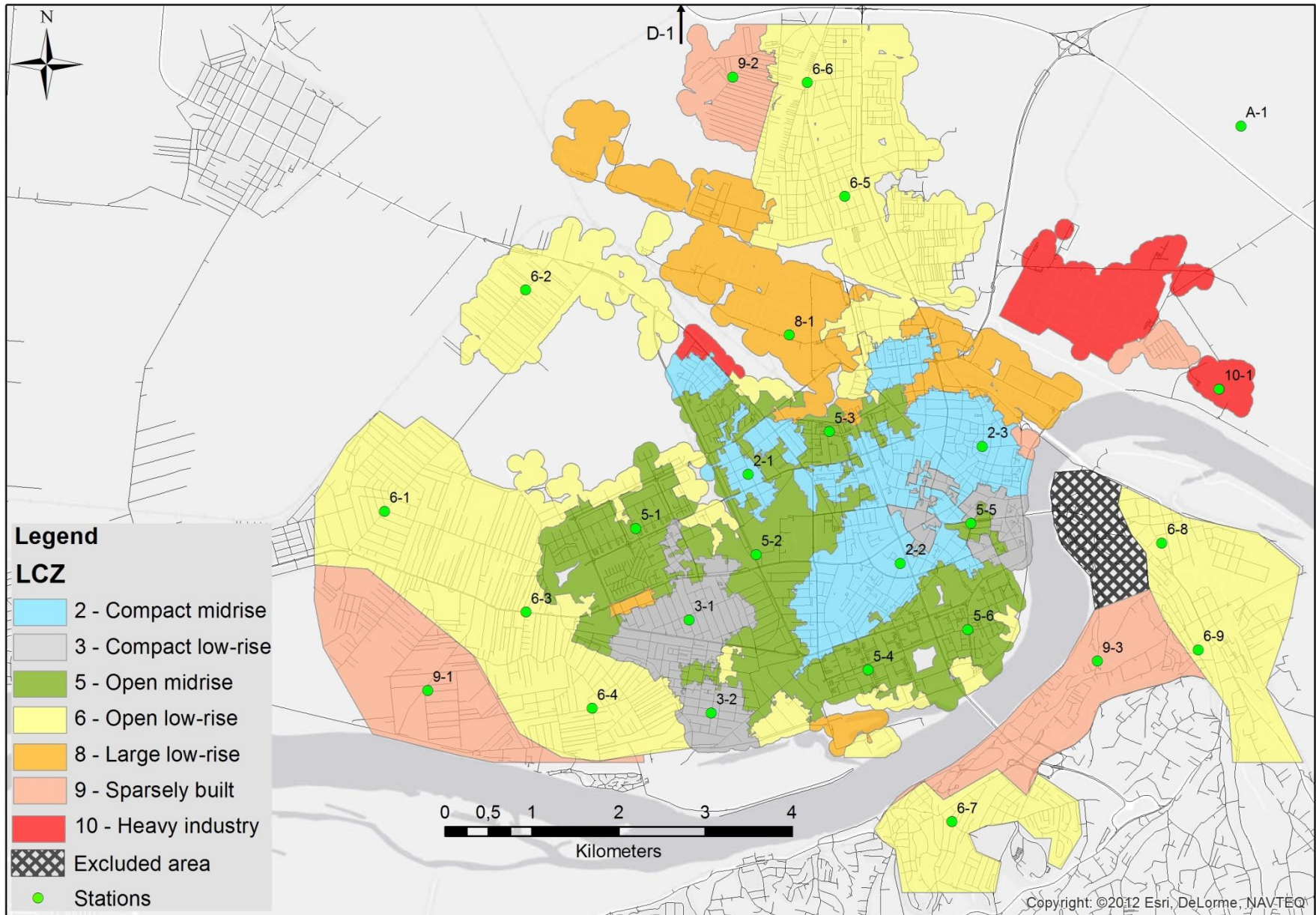
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<sup>2</sup> Climatology and Hydrology Research Centre, Faculty of Sciences, University of Novi Sad; Trg Dositeja Obradovića 3, 21000 Novi Sad; [www.clihyd.com](http://www.clihyd.com)

# Investigated area



# Urban climate research





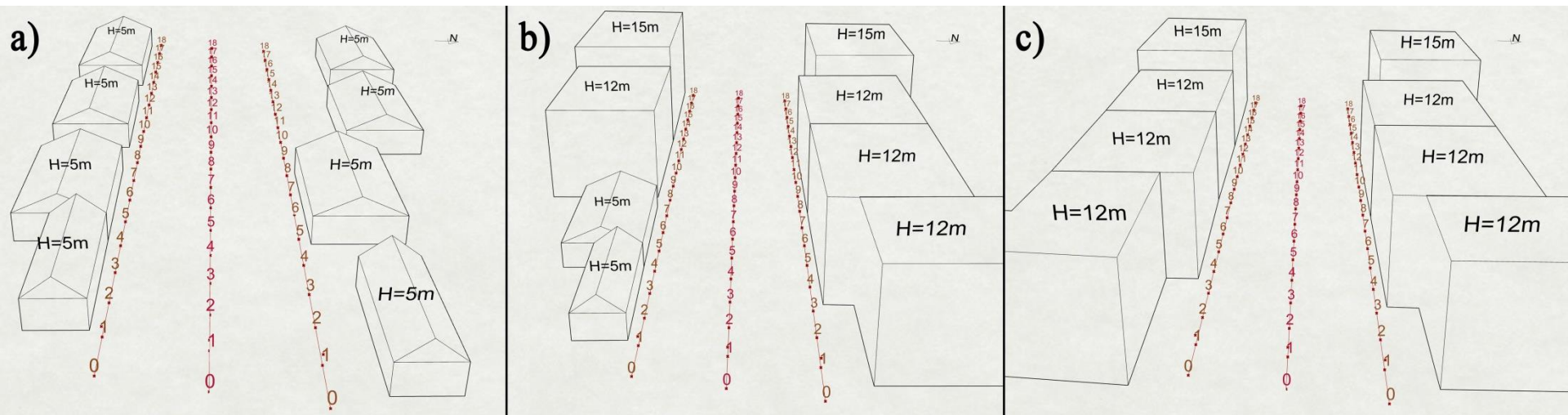
# Thermal comfort during hot summer day in various urban designs



past 2001

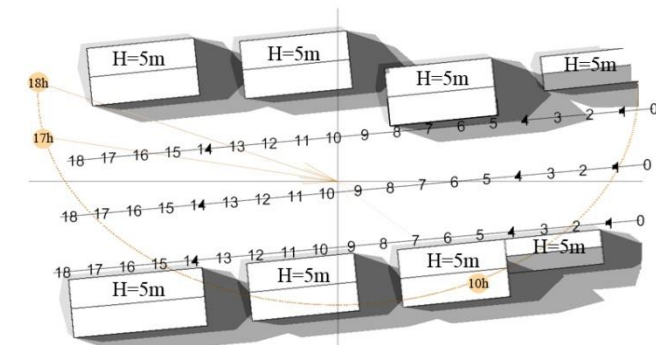
present 2014

future 2021



a)

past 2001

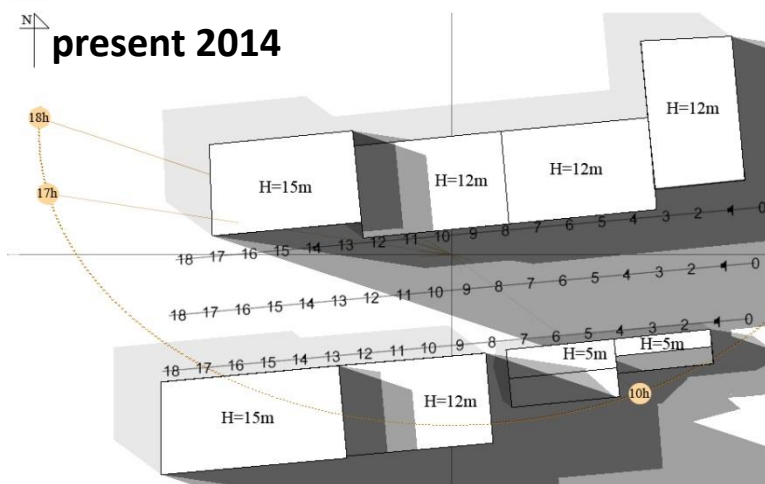


10h

17h

18h

present 2014

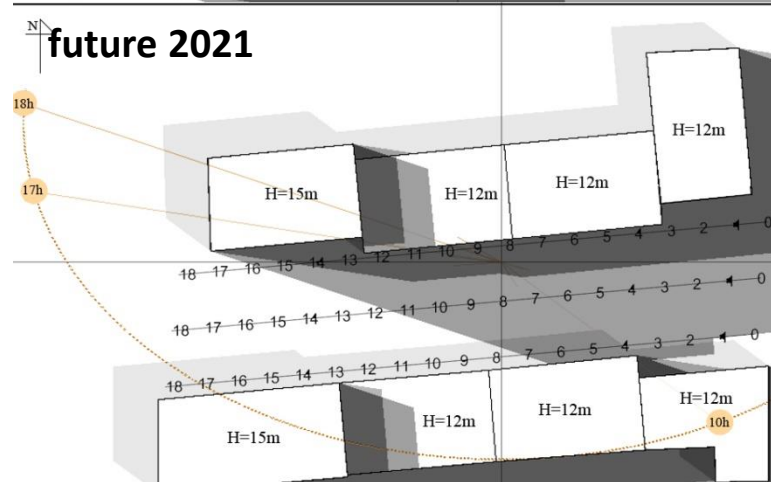


10h

17h

18h

future 2021



10h

17h

18h

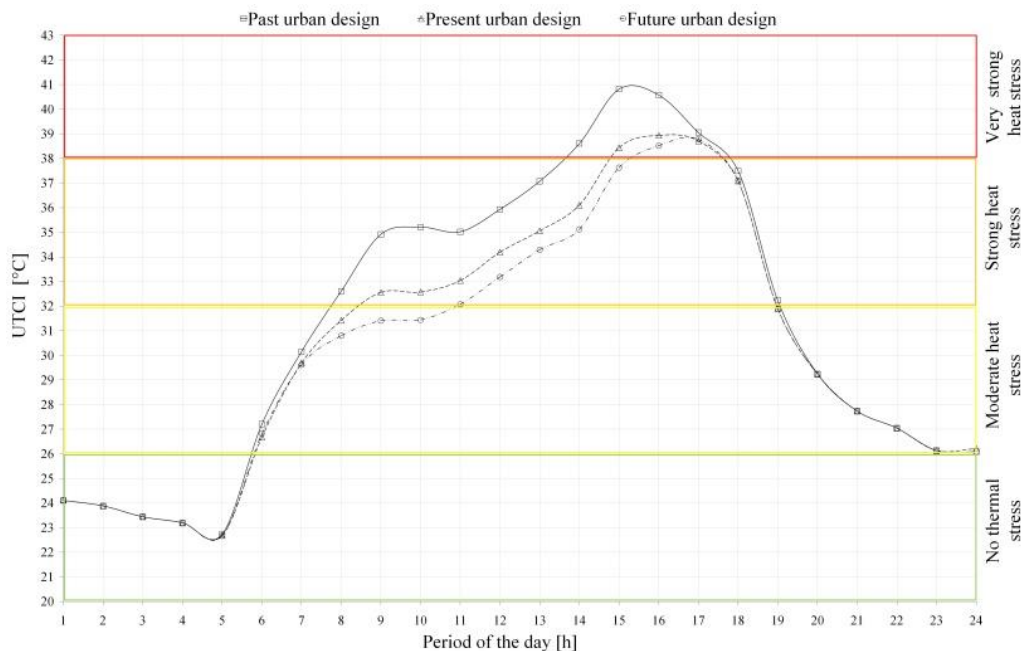
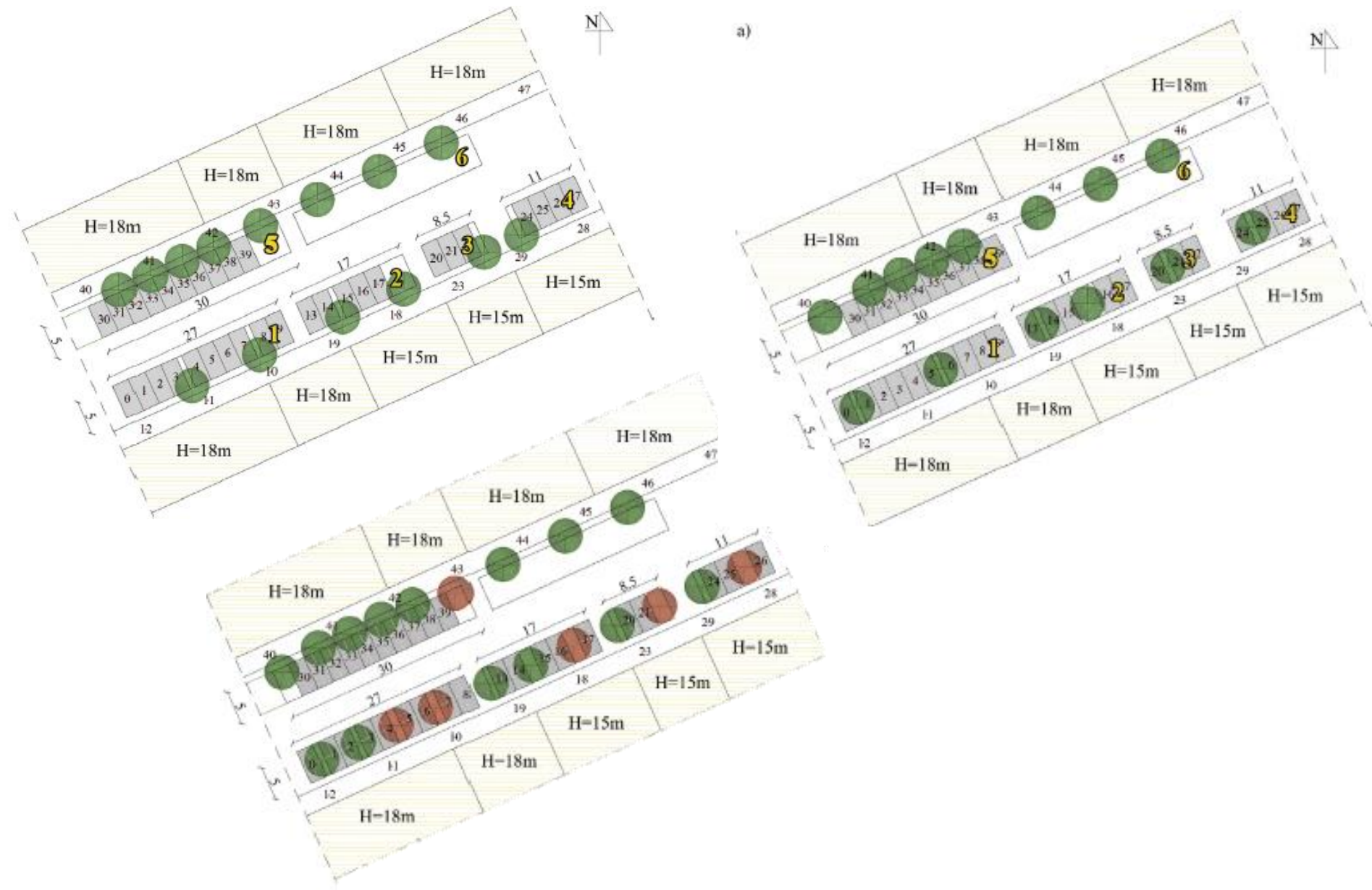
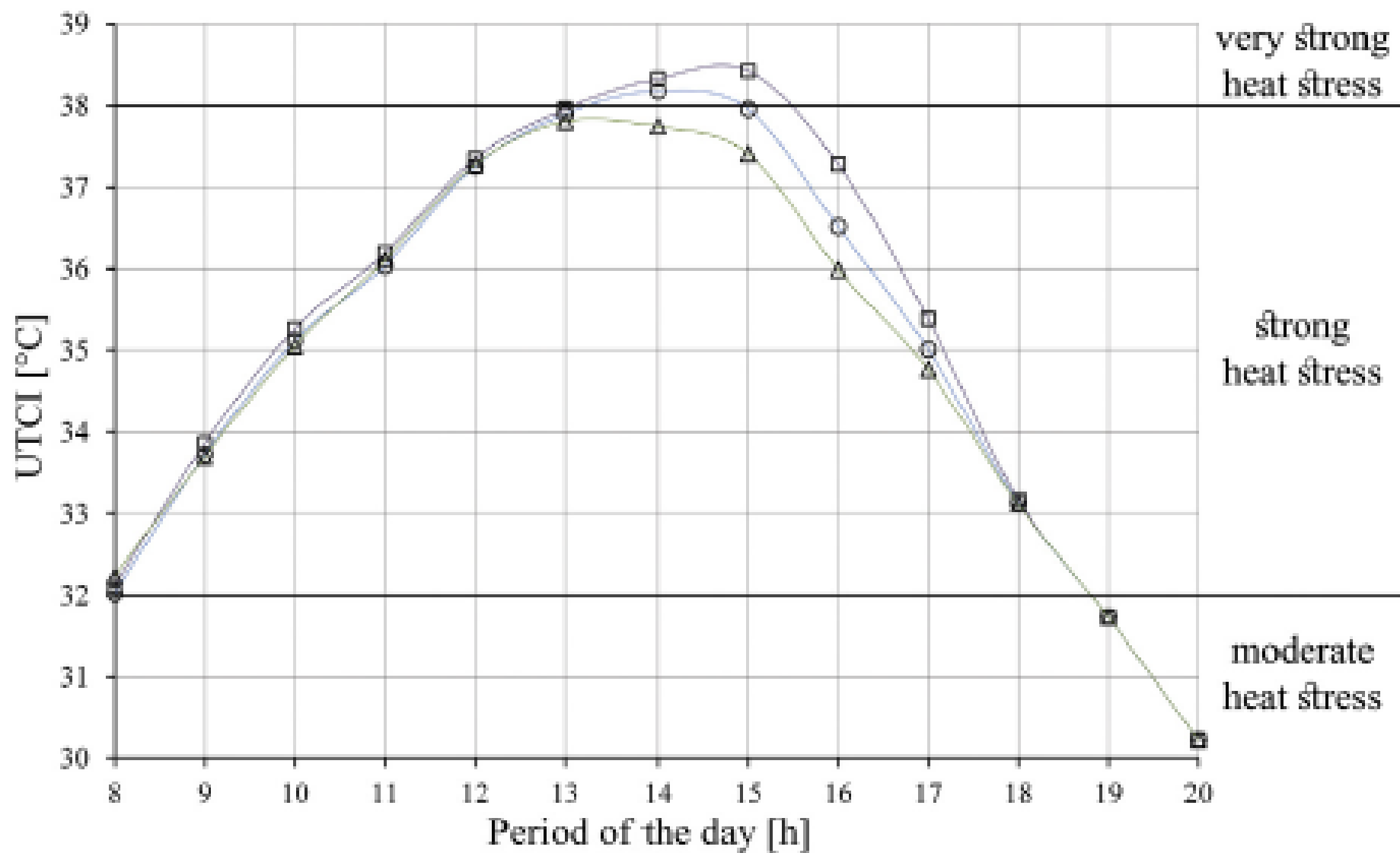


Figure 2. UTCI value by period of the day for past, present and future urban design.

# Location of trees in street parking lots and outdoor thermal comfort



- Present SPL design
- Proposed SPL design with predetermined number of trees
- △ Proposed SPL design with added trees



# Discussion and conclusions

- Direct impact of changing the urban geometry on outdoor thermal comfort during extreme temperatures
- More shaded areas in present and future urban design, compared with the past
- Have to find compromise between maximum overshadowing in summer and maximum sunlight in winter to ensure optimal thermal comfort during extreme temperatures
- Support climate-conscious urban planning in cities



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Životna sredina ka Evropi  
*Environment to Europe*  
Beograd, 5. jun 2017.  
*Belgrade, Serbia, June 5, 2017*



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## THANK YOU FOR YOUR ATTENTION!