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Evaluation of home composting programmes in the frame of urban sustainable development policies

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Objective

The concept of urban sustainable development has been expanded nowadays and included in the strategies adopted by numerous national and local authorities worldwide

Objective

- Evaluation of home composting programme implemented in the municipality of Neapoli-Sykies in Northern Hellas
- Estimation of the effect this programme had on waste generation rate as well as on the citizens behaviour towards urban sustainability.



Introduction

Indicators defining urban sustainability

- Territorial management and urban design
- Mobility and transport
- Natural resources management
- Social and economic cohesion

The adoption of rational Waste Management (WM) schemes is a step for the transition from current industrialized cities to sustainable ones

The importance of home composting comes from the fact that organic waste represents almost 40% of the total generated waste in Hellas



Materials and Methods

Monitoring of home composting programme took place both at its early and middle processing phases by conducting **in-person interviews** with composting bins users.

Research interviews were conducted from January to June 2013 as part of **door-to-door campaign** (during 2012 and 2013) in the area of Neapoli-Sykies municipality concerning:

- home composting monitoring
- provision of information and
- suggestions for problems solution

Materials and Methods

Interviews were addressed to:

- new members of the home composting scheme
- twice to composting bins owners that faced significant problems during implementation process

The **actual situation** regarding bins condition was recorded, while interviewees brought to light any problems related to composting process.



Results and Discussion

- The majority of the interviews (77%) were addressed to citizens owning composting bin for over a year and only 6% of them to a short period owners.
- 1 out of 10 bins were full of organic waste, whereas almost half of them presented high filling rate.



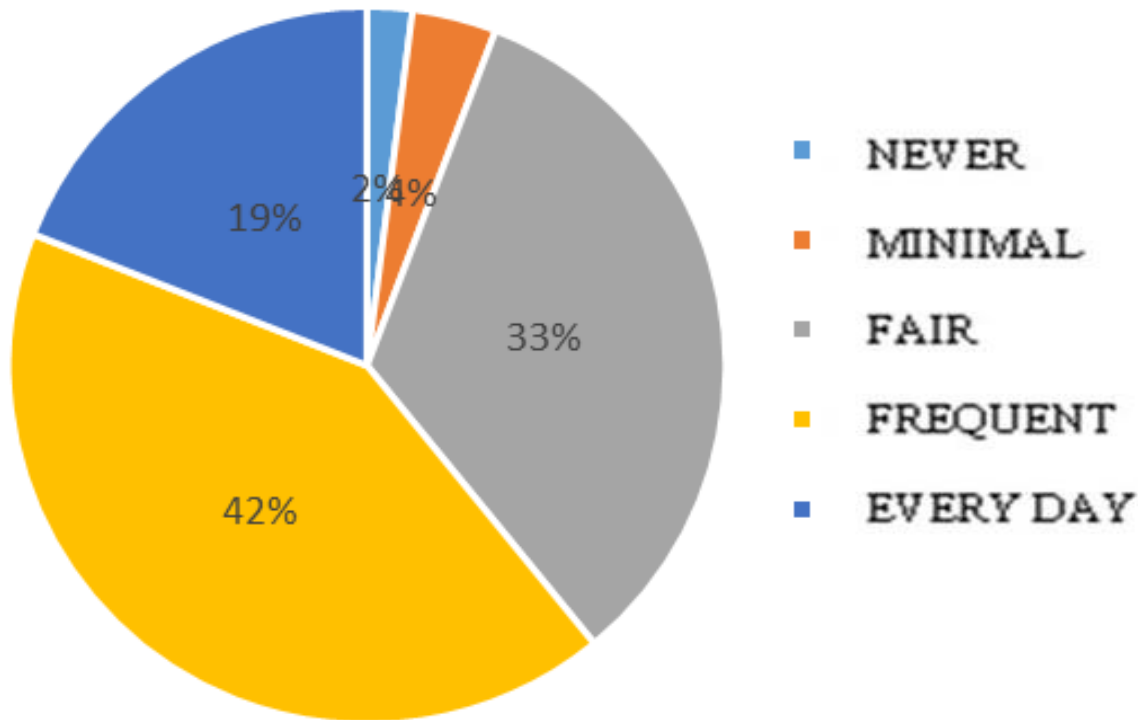
Results and Discussion

- **Only 2%** of the citizens taking part in the research expressed their wish to no longer participate in the programme wanting to return their bin
- **65% of the interviewees** had already used compost produced in their bins,
- The majority of the bins owners were **highly satisfied** with the collected amount of compost



Results and Discussion

Use of composting bins

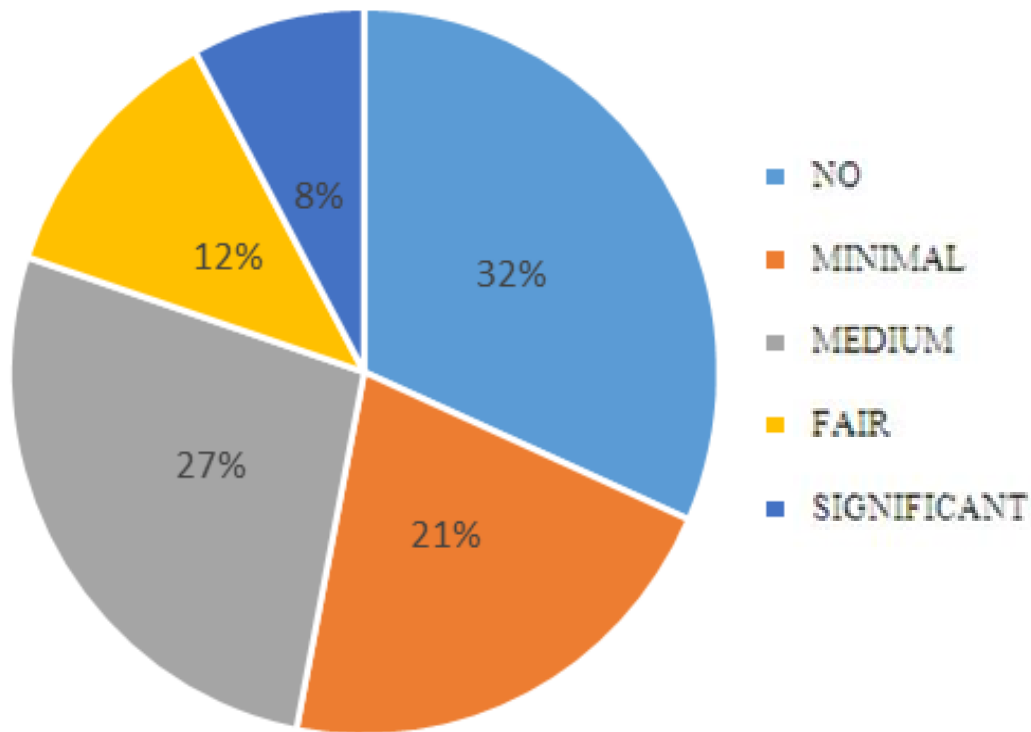


- 1 out to 5 citizens use their bin every day

- The vast majority of participants are frequent users

Results and Discussion

Compost generation

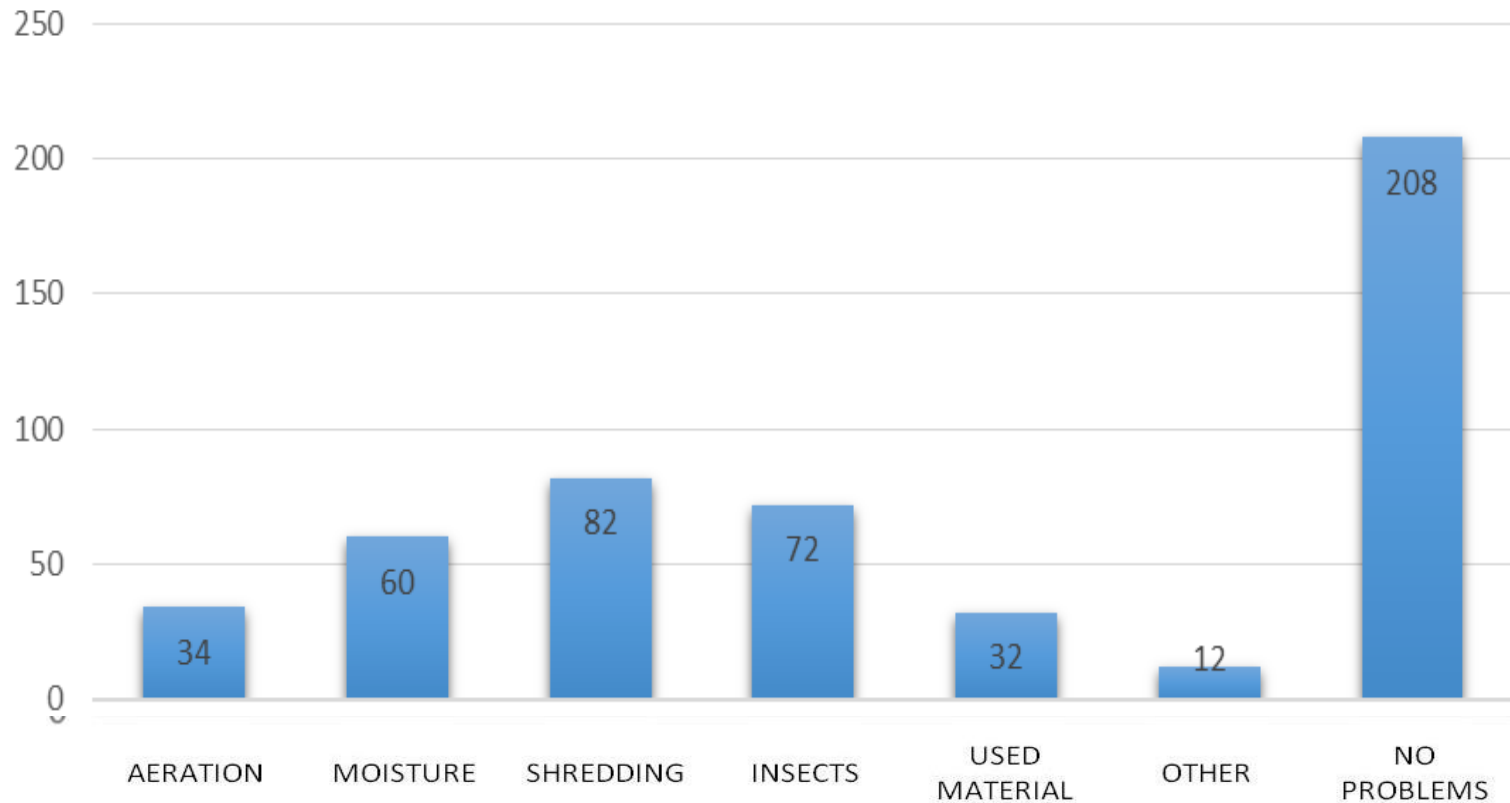


- 1 out to 3 citizens did not produce compost yet

- 20% of the participants produced fair/significant amount of compost

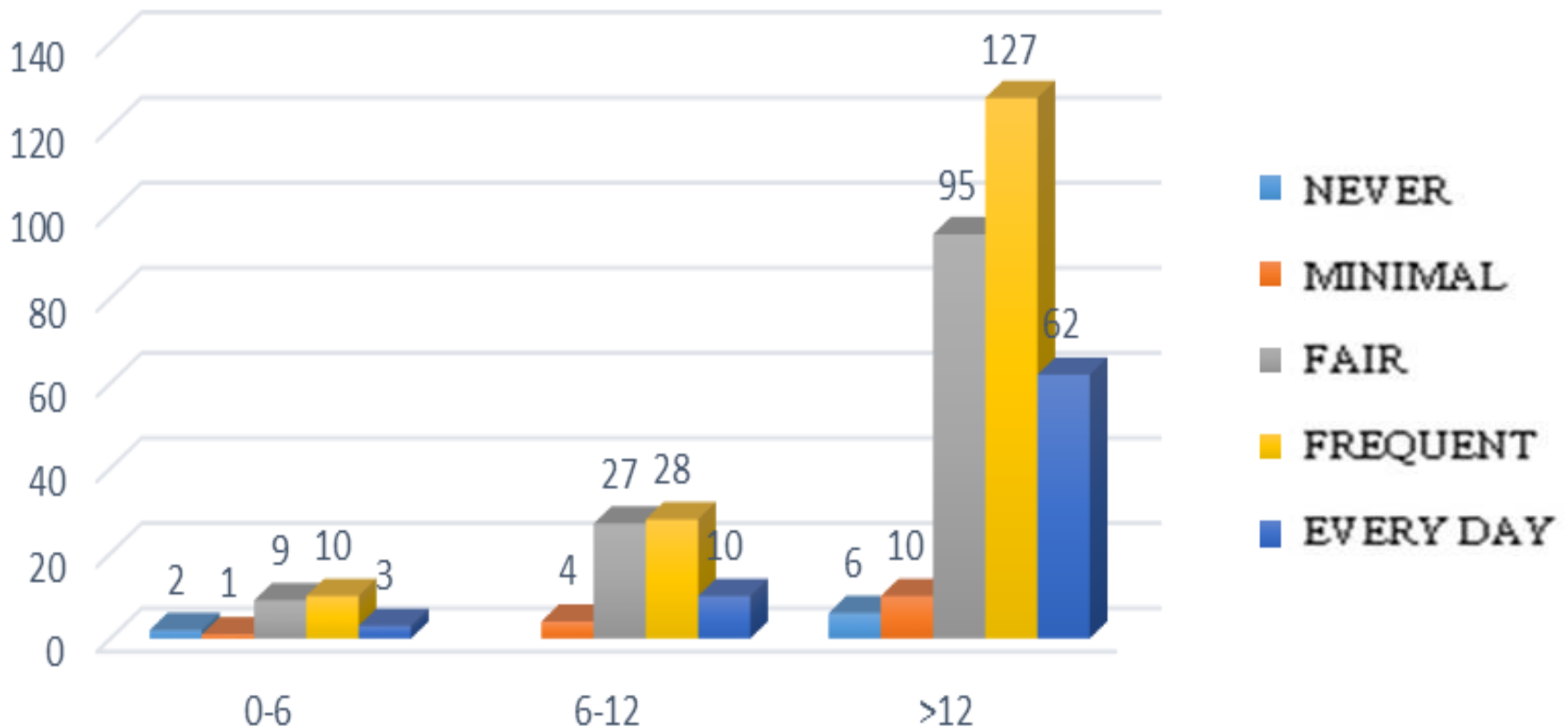
Results and Discussion

Obstacles



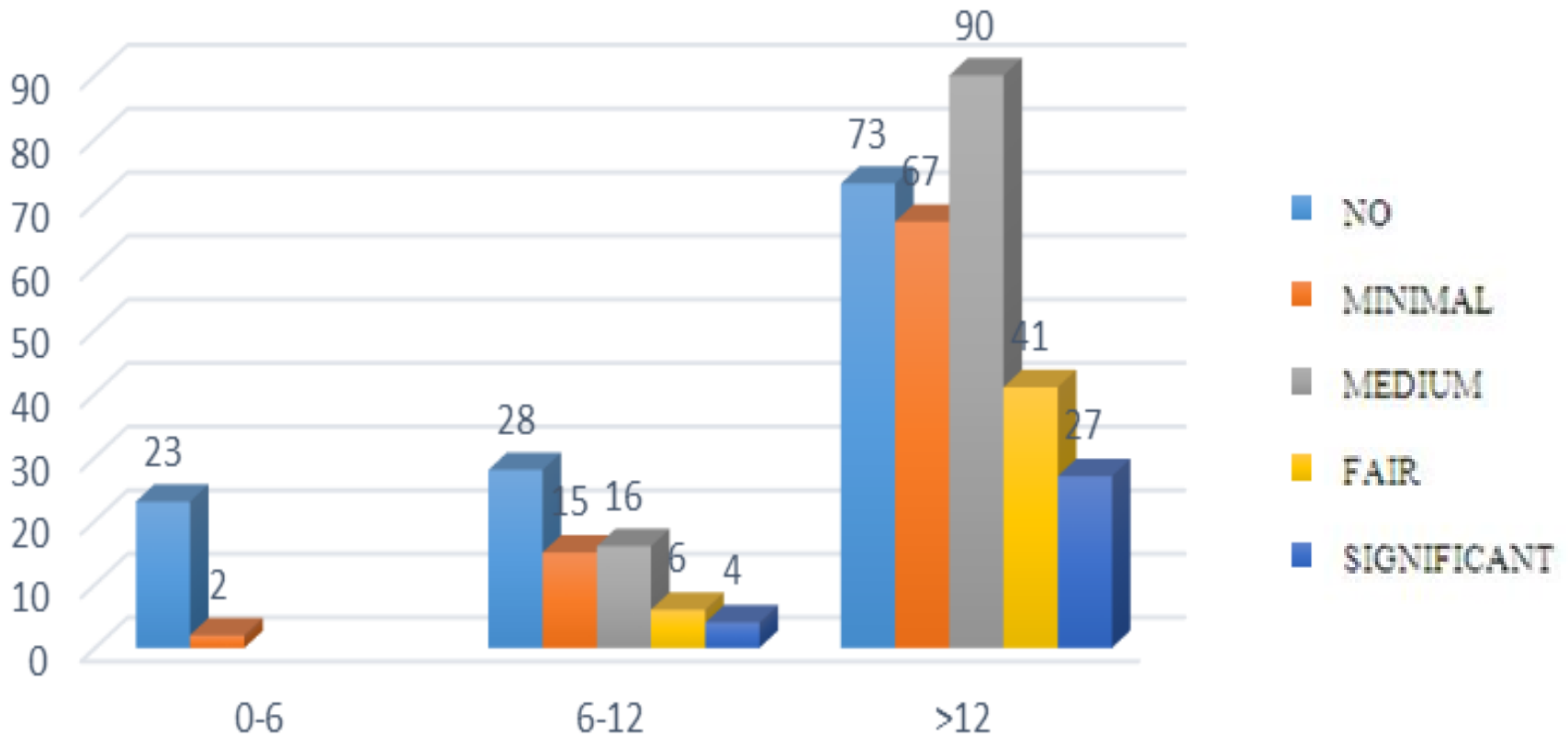
Results and Discussion

Participation in relation to implementation period



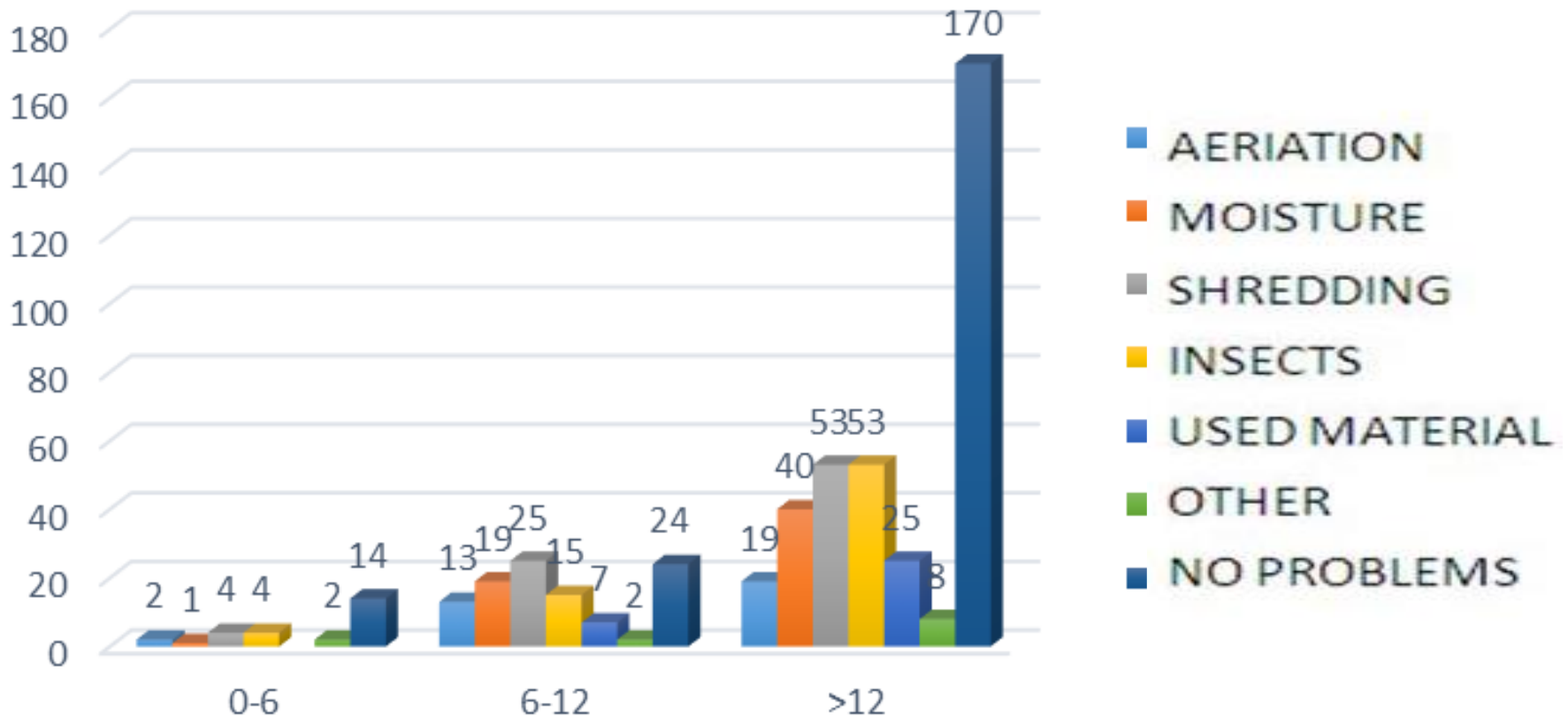
Results and Discussion

Compost production in relation to implementation period



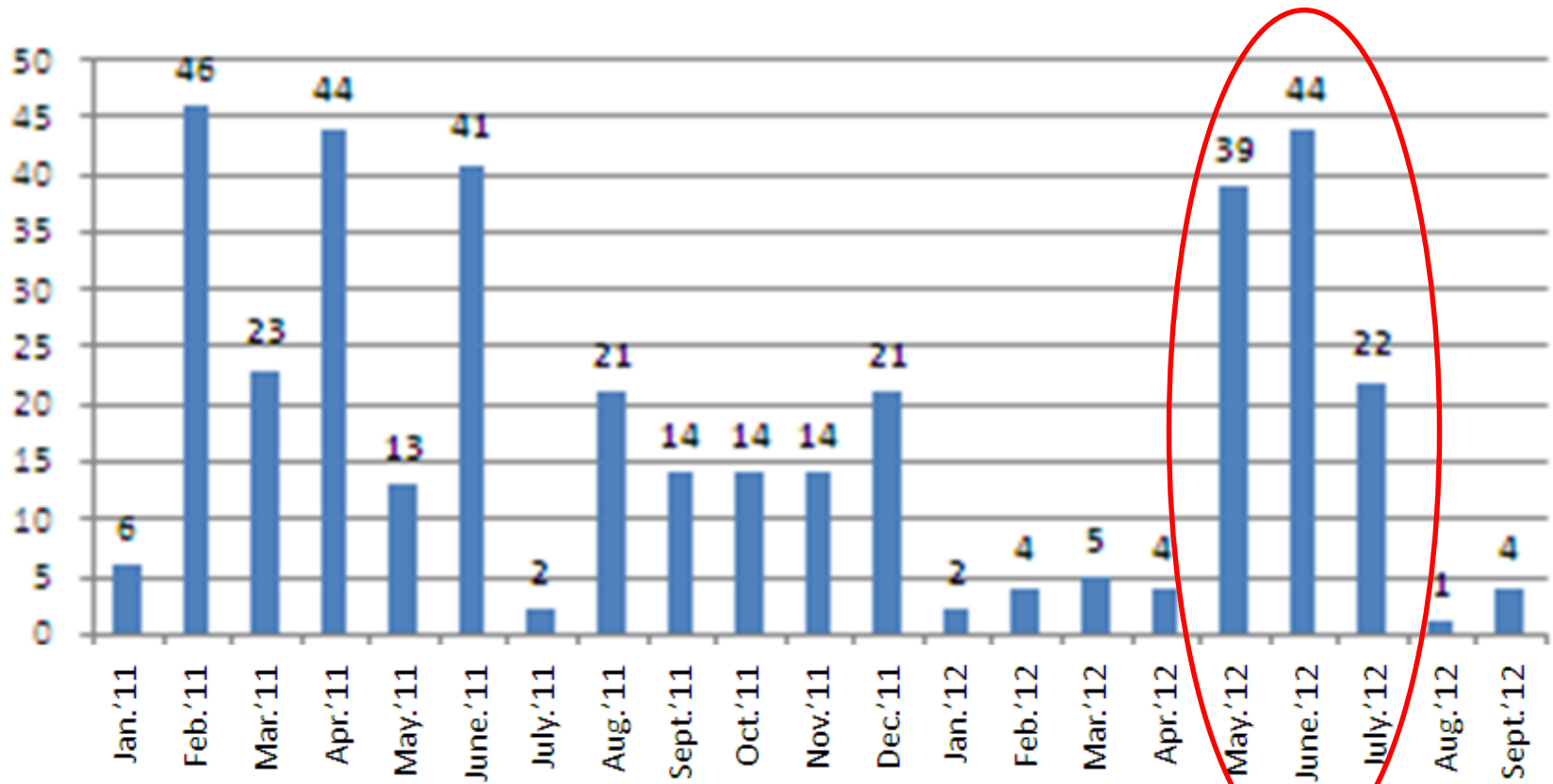
Results and Discussion

Obstacles in relation to implementation period



Results and Discussion

Number of new composting bins installed in households



Results and Discussion

- The majority of citizens participated in the research with great willingness
- Many of them participate also in other rational WM schemes (recycling of packaging waste, cooking oils, batteries, WEEE)
- Citizens are generally satisfied with home composting programme, while the participation rate is getting higher after a short period
- Compost production is currently fair



Conclusions

- The research brought to light multiple aspects of this waste prevention programme indicating its significant contribution in this purpose.
- It revealed several problems faced during the implementation process, whereas identified the relation between these aspects and the implementation period.
- Building up knowledge increases the participation of citizens in new rational waste management schemes and help in achieving the targets of these programmes.



Acknowledgements

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<http://www.urbanempathy.eu/>



Thank you for your attention!

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