
Progress Report Phase 1: A system to regulate E-waste export in the EU

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ABSTRACT

In today's society electronics become a more and more crucial part of our lives. The demand for electronic devices increases and so does the amount of waste we produce with them. E-waste is a

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term used for old electronic devices that are of no use anymore and thus become scrap. This causes serious pollution to our surroundings and other countries since most of the e-waste is being exported to third world countries.

Our goal is to find a solution to this pollution problem. Our plan is to create a trading system similar to the CO2 trading system of the European Union. Countries are allowed to only export a certain amount of e-waste. This amount can be increased if they either buy allowances from other countries or if they invest in recycling of e-waste. The global e-waste export limits will be lowered year by year, thus lowering global pollution created by no longer used electronics.

CCS CONCEPTS

• **Hardware** → **Power and energy**; *Impact on the environment*;

KEYWORDS

E-waste; Fee-Upon-Disposal Regulation; recycling.

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INTRODUCTION

E-waste is a growing problem, especially in industrialized countries. One of the applied solutions is to ship this e-waste to third world countries. However, this cannot be the longterm solution. As such we propose an e-waste allowance system. With this, only a limited amount of e-waste can be shipped outside, which will be reduced yearly.

RELATED WORK

TBA

JUSTIFICATION

Many solution to the e-waste problems are extreme (as seen in the related work section). However, it is important for a successful transfer from old plans to efficient e-waste plans to make small adjustments first. For this reason, we introduce an e-waste allowance. This will force countries to slowly but surely reduce their e-waste production.

EVALUATION

In order to check the validity of this approach, we will introduce this system first for specific device. For example, only TVs should be limited in exporting. With the results of the testing phase, we will re-evaluate our system.

RESEARCH PLAN

Our system will be similar to the C02 system of the EU. As such, we will analyze the C02 plan and re-adjust it to our needs. For this, these important aspects have to be considered: the measurement of e-waste, the distribution of e-waste-shipping-certificates (similar to the C02-certificates) and how many certificates should be available. In the first progress report, we will present a draft-system for this. In the mid term synchronisation we expect to have the system more fleshed out. In the second report we expect to have the system completely worked out. In the final stage, we will expand our research question in other ways. For example, with our proposed idea no clear progress can be measured (when considering everything), as only returned e-waste is monitored. One solution to this would be to research how e-waste could be tracked.

REFERENCES