



MÁ TO SMYSL, TŘÍDTE ODPAD!

**Shaping market while maintaining
competition in the market**

EKO-KOM EPR SCHEME

Separate waste collection costs

- Every municipality is entitled to conclude contract on terms equal to any other municipality
- Rates of payment are defined for each separated commodity and type of collection
- Rates are set for different municipality size groups
- Rates are calculated as a median value calculated from costs reported by municipalities over last year plus expected inflation
- Every municipality in statistical size group gets same rates per ton of material collected and transferred to sorting process

- Municipality with high collection cost is losing money
- Municipality with low collection cost is earning money
- As a result, all municipalities are motivated to contract best operator of collection.
- Any municipality may contract any operator. Any operator can offer service to any municipality. Collection is market driven therefor.

EKO-KOM EPR SCHEME

Sorting operation costs

- Balance cost per ton is difference between operation cost and income from sold materials
- This difference may be covered by gate fee charged per ton to operator which delivers collected waste to sorting line
- When income from gate fee is higher than balance cost, sorting line has economic interest to operate
- However, when gate fee of sorting line is higher than gate fee of landfill or incinerator, operator does not have economic interest to deliver waste to sorting line

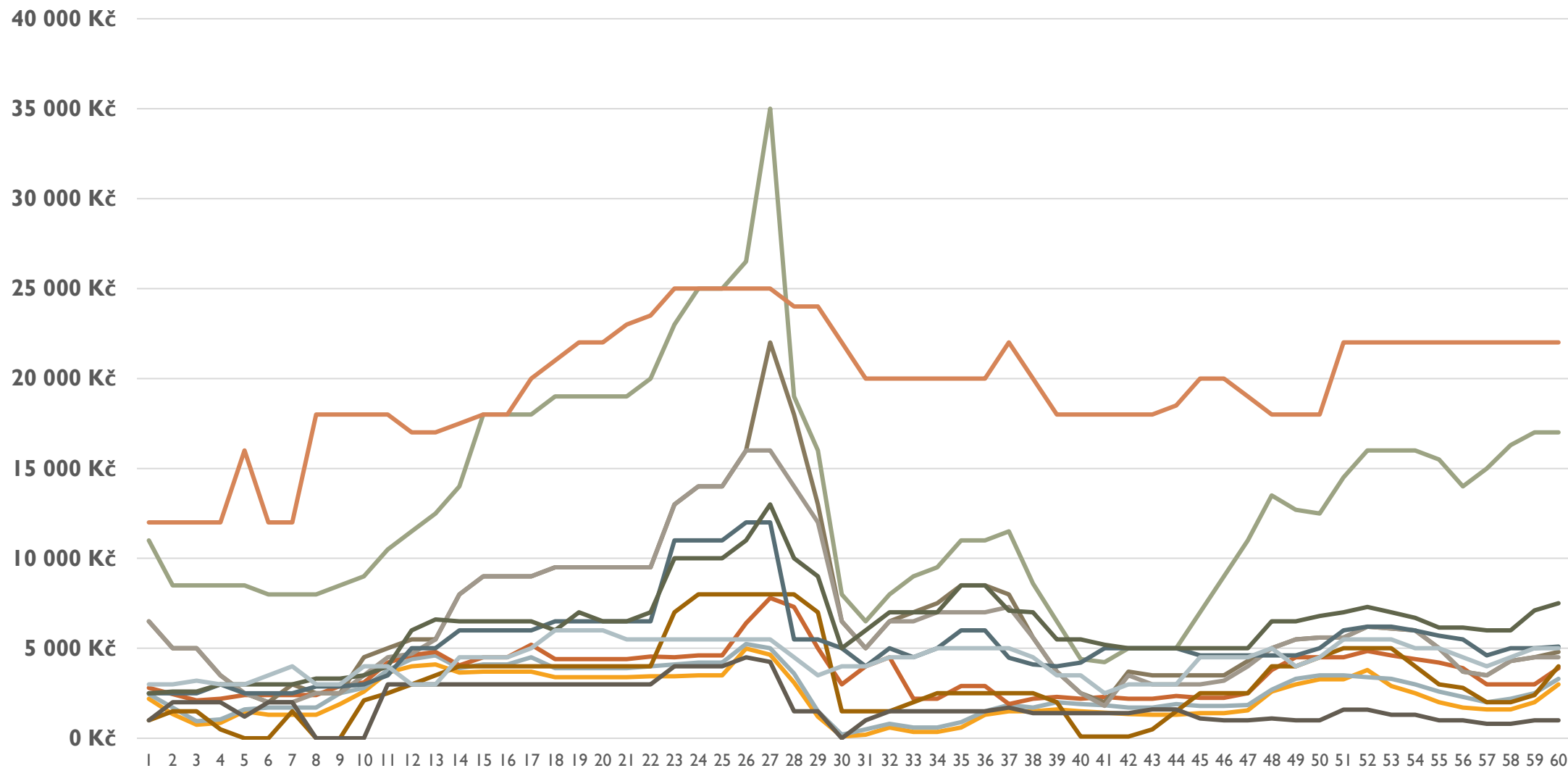
- EPR scheme pays to sorting line per ton of processed waste to cover part of balanced cost
- This payment should be high enough to keep sorting line gate fee below the usual gate fee of landfill or incineration operations. This makes economic incentive to waste operator deliver waste to sorting line, which is cheaper than landfill or incineration.
- In outcome, sorting lines compete each to other in gate fee, while waste operator selects sorting line by cost of gate fee and distance from place of collection.

- It is possible to assess median operation costs of sorting line and also to assess their income from sale of material by known market prices.
- Sorting lines may be reimbursed per ton of material their take from operators and set gate fee accordingly
- However, it does not work this way

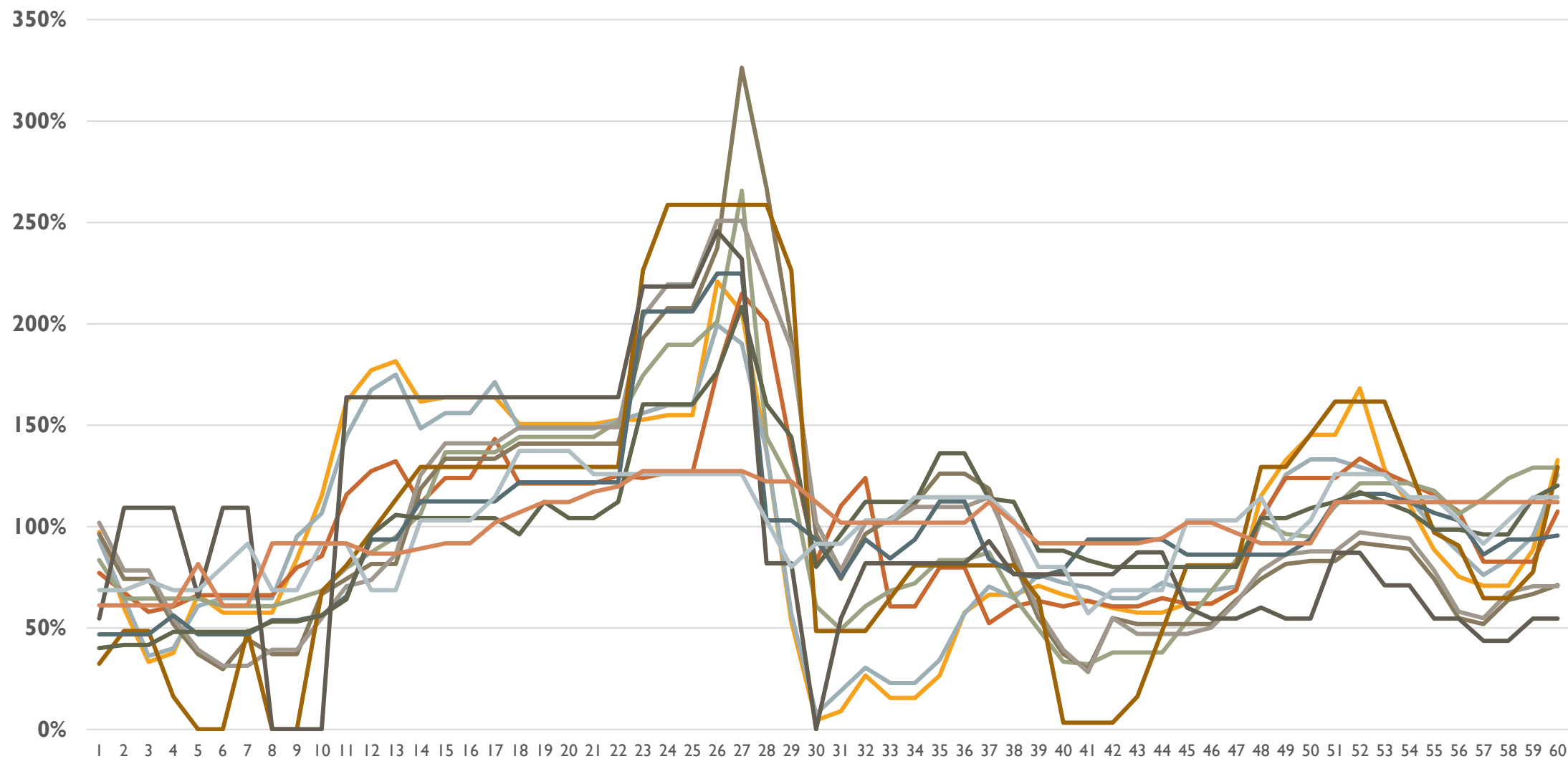
EKO-KOM EPR SCHEME

Secondary material market

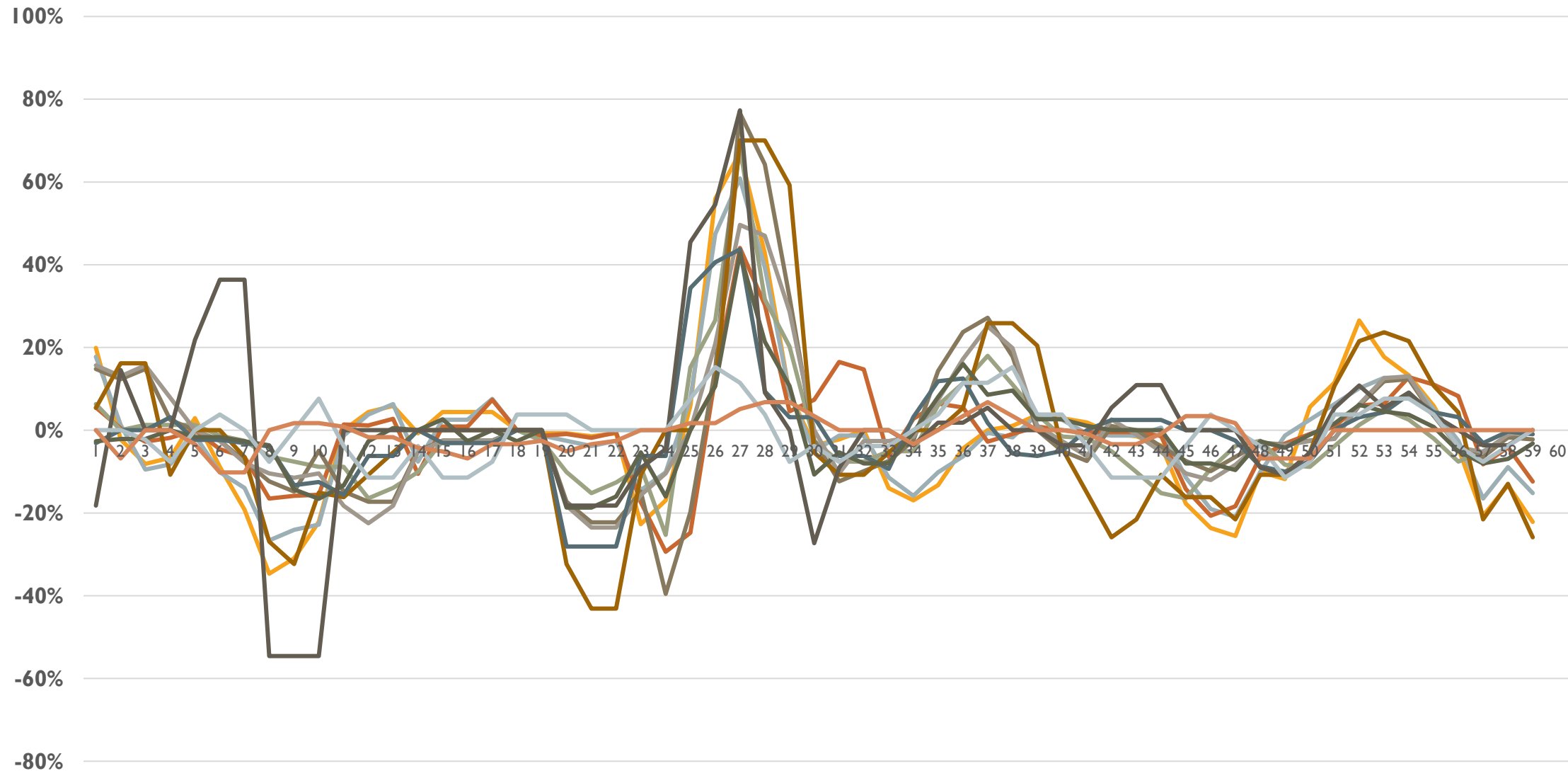
Market prices over last 5 years



Market price against 5 year average



Month to month average price change



- Material prices are volatile; price of material may change by dozens of percents in one month or even week
- Sorting line when paid for input material will be continually adapting its sorting strategy to fast changing material prices immediately stopping sorting of material with low value or at risk of substantial drop.
- Amount of output from sorting will be as volatile as the market itself

- Major part of payment to sorting line should be made not by input to sorting line but per its output delivered to recycling
- These payments should be done by rates set to different output materials and should be same to all sorting lines
- These rates should be permanently corrected to actual market value of material, at least quarterly
- This way EPR ensures, that only sorting line operating in frame of set strategy is maintaining its EBITDA at target level
- This target level is set to achieve desired level of gate fee

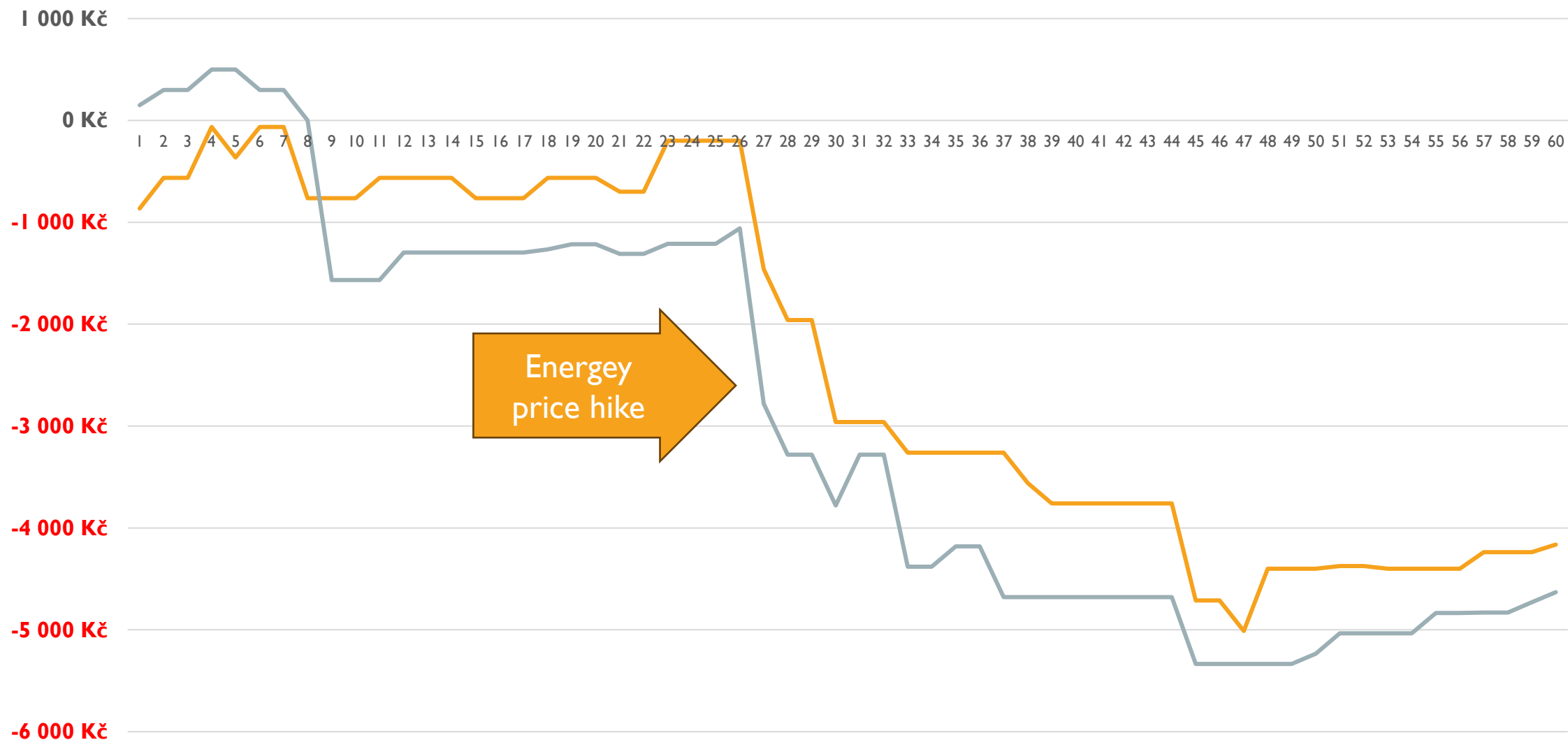
- Sorting lines are not speculating on the market, as their EBIDTA is ensured independently from material market fluctuation
- Best way to achieve financial result is to make sorting most efficient, thus gaining maximum total sum of payment from EPR and same time sell material for the best current price
- As EPR payments depend on average sorting operation costs and average material market price, successful sorting lines are creating market benchmark to all other sorting lines
- Most efficient sorting lines may offer lowest gate fees to waste operators and this way attracting more material to their plants.
- In outcome competition in market is maintained while EPR sets sorting standard through its intervention

EKO-KOM EPR SCHEME

Materials with negative value

RECYCLERS OF SOME WASTES CHARGE SORTING LINE FOR THE WASTE THEY TAKE FOR RECYCLING

Negative market value commodities

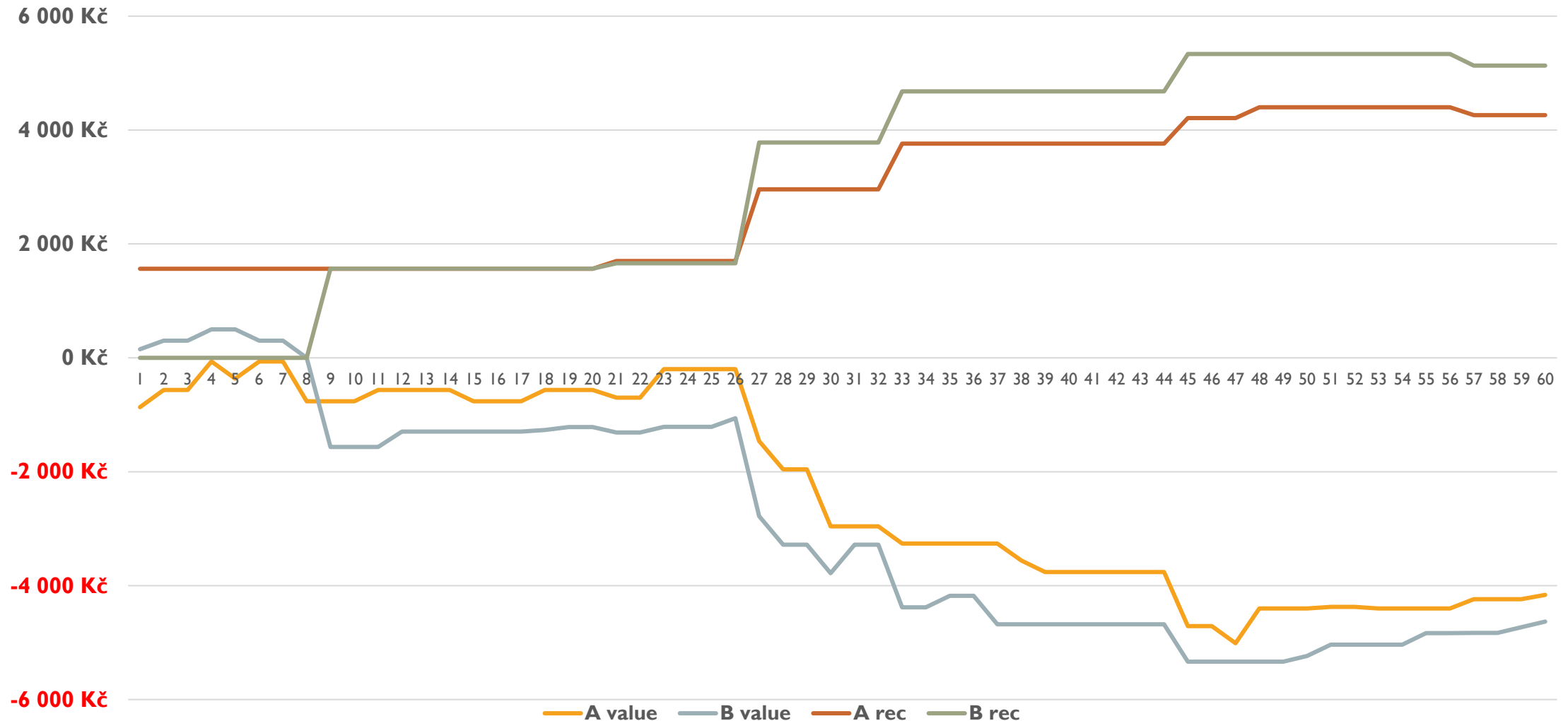


- Negative price actual means, that sorting line operator should pay to recycler to transfer material to him
- Generally, it means, that recycler is not able to sell material for price higher than his own operation, mainly energy, costs are
- When price required by recycler is higher than price required by landfill or incinerator, then sorting line will not transfer waste to recycling, but will transfer it to disposal or energy recovery
- In such a case all separate collection costs and sorting cost were spent in vain

- EPR may pay to recycler for the waste he took over from sorting lines and recycled
- This enables recycler to either charge sorting lines less or even to purchase material from them for some positive price
- When all recyclers of some waste type are paid at the same rate, recyclers will have to compete offering better price to sorting lines to get the material
- When transfer of waste to recycler is cheaper than disposal or incineration, sorting line has economic incentive to prefer recycling

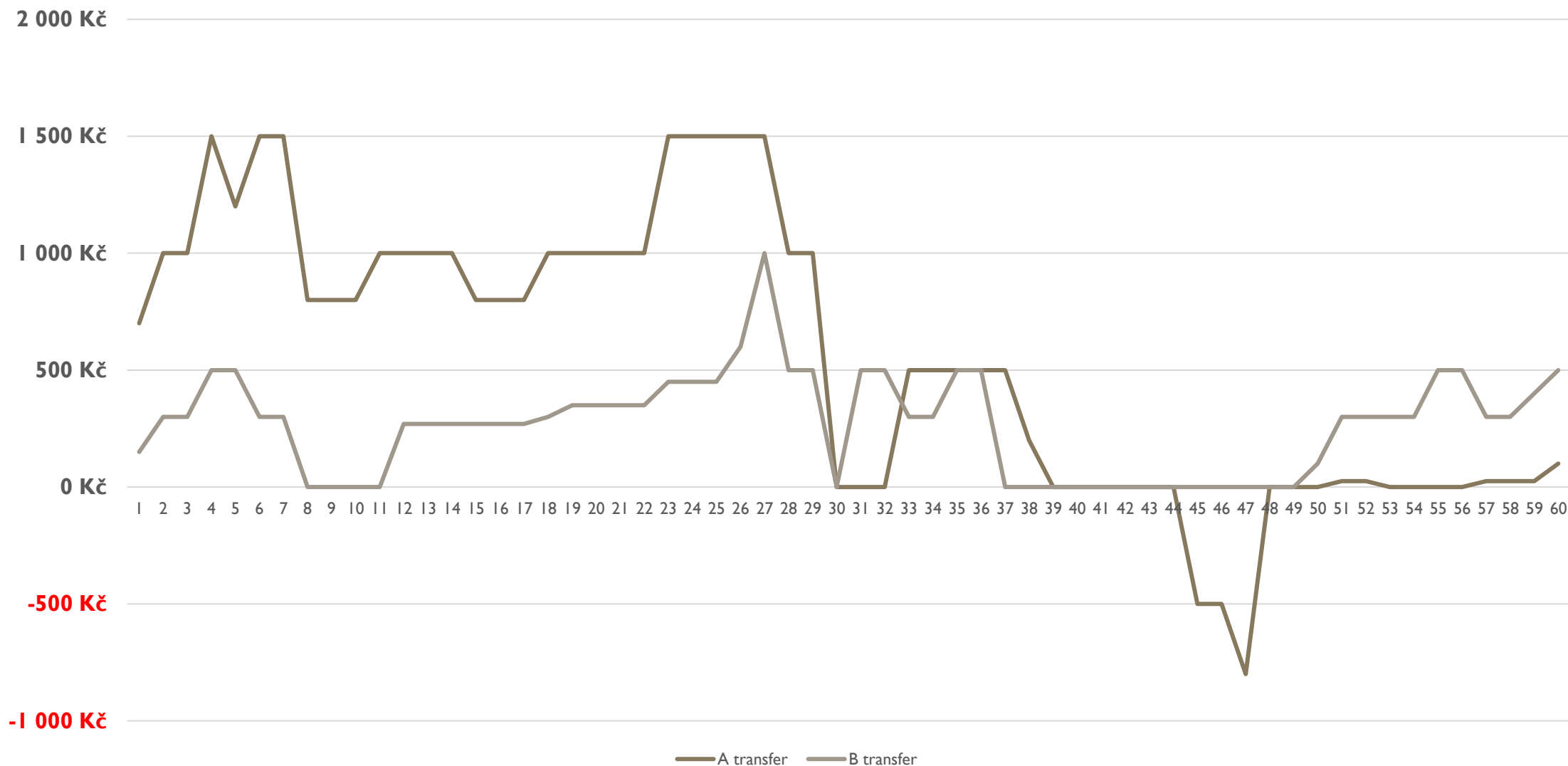
RECYCLER COSTS ARE LESS VOLATILE, BUT RATES STILL SHOULD REFLECT ENERGY MARKET

Market intervention



SO CALLED TRANSFER PRICES ARE THEN POSITIVE, BUT STILL MARKET DRIVEN AND VOLATILE

Market transfer price

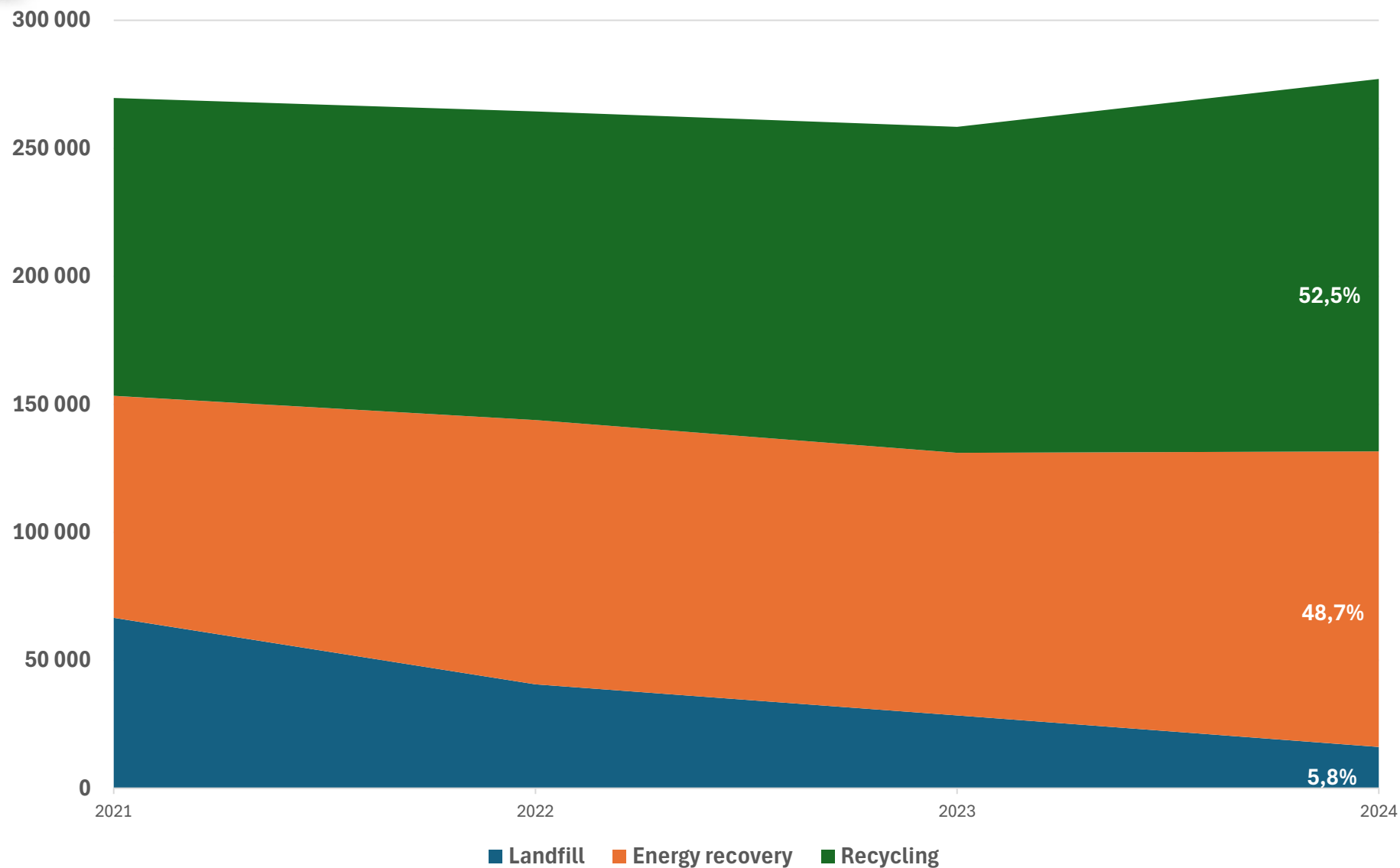


EKO-KOM EPR SCHEME

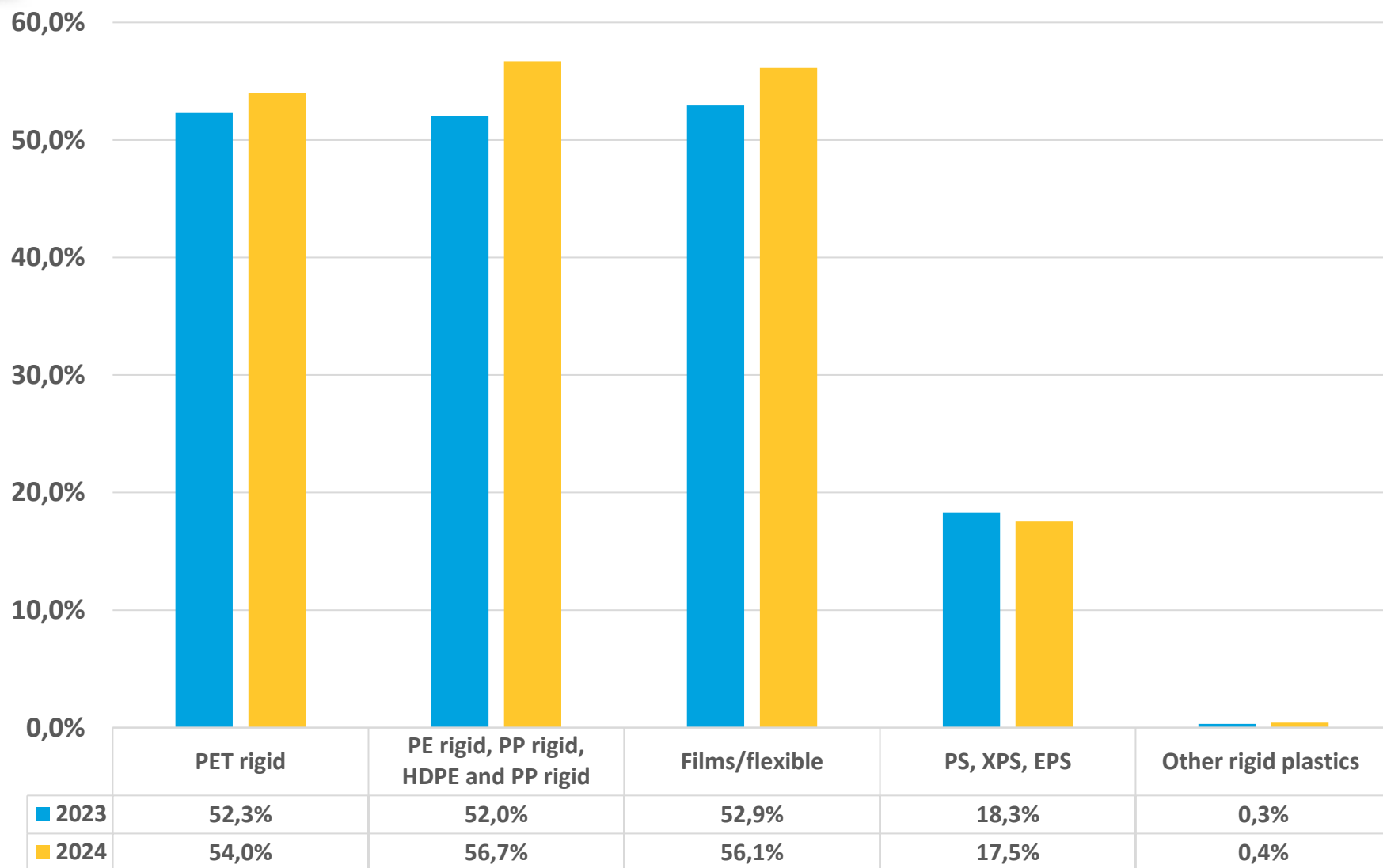
Conclusions and results

- All municipalities are reimbursed by rate equivalent to median cost of collection, collection cost charged by waste operator is created in competition of these operators
- Recyclers of difficult wastes are reimbursed to the level, when transfer prices of material from sorting line to recycler is at least some positive, actual transfer price is market driven
- Sorting lines are reimbursed mainly by ton of material transferred to recycling. Rates differ material by material a reflects rapid market price changes of material which make sorting business less speculative. Swift and appropriate rate changes are key to effectivity.
- Rates to sorting lines are set such a way, that their EBITDA enable them set gate fee below those of landfill or incineration, however gate fee is still set by competition is sorting services

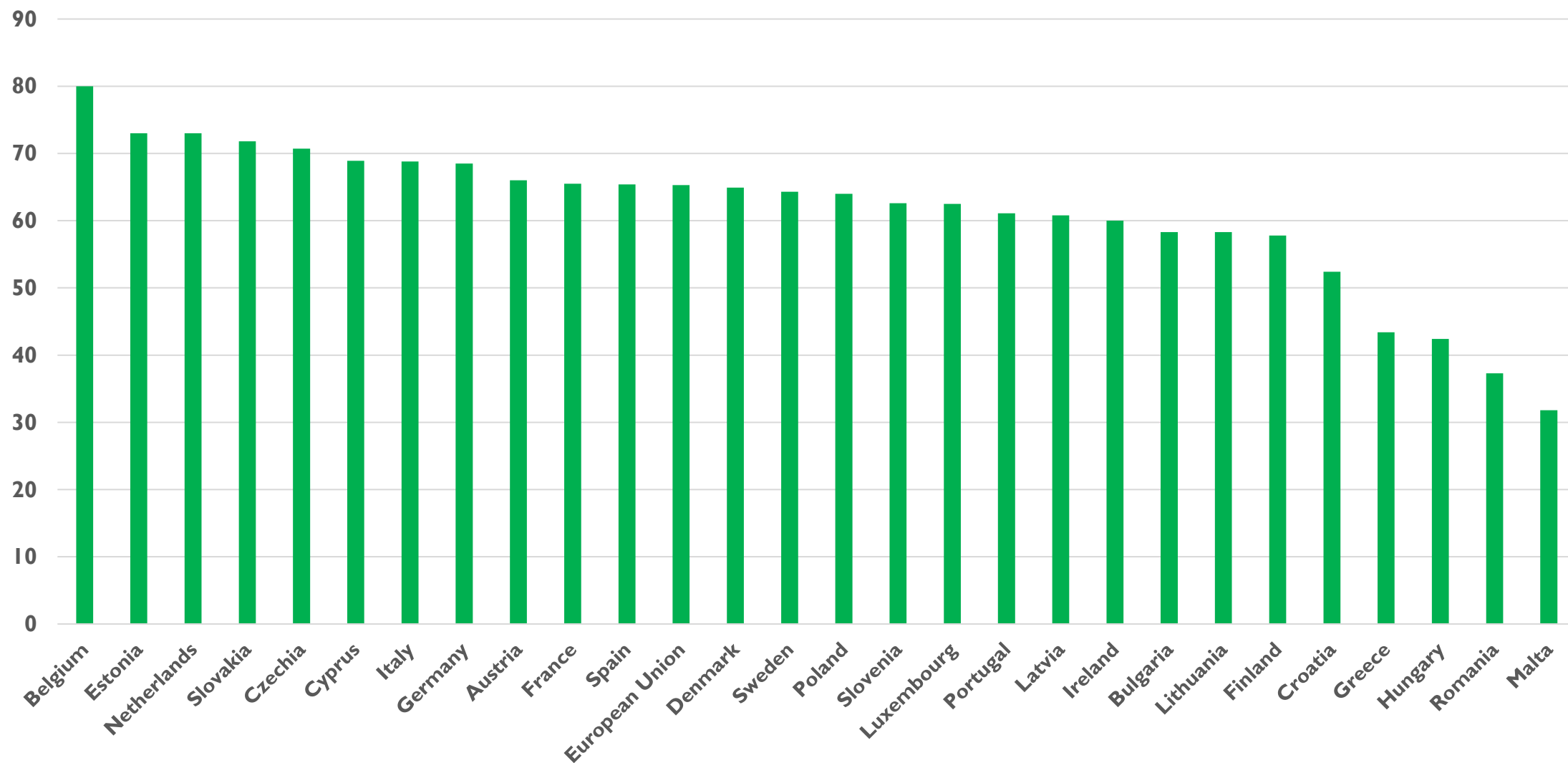
AMOUNT OF PLASTIC INCREASED BUT SAME TIME RECYCLING AND RECOVERY IMPROVED



PLASTIC RECYCLING IMPROVED IN ALL MAJOR PPWR CATEGORIES



Recycling rate



THANK YOU FOR ATTENTION

(AND ALL CURRENT RATES ARE HERE WWW.EKOKOM.CZ)