

המשרד להגנת הסביבה



الوزارة لحماية البيئة
Israel Ministry of Environmental Protection

PRTR Summary and Analysis of 2016 Reports



February 2018

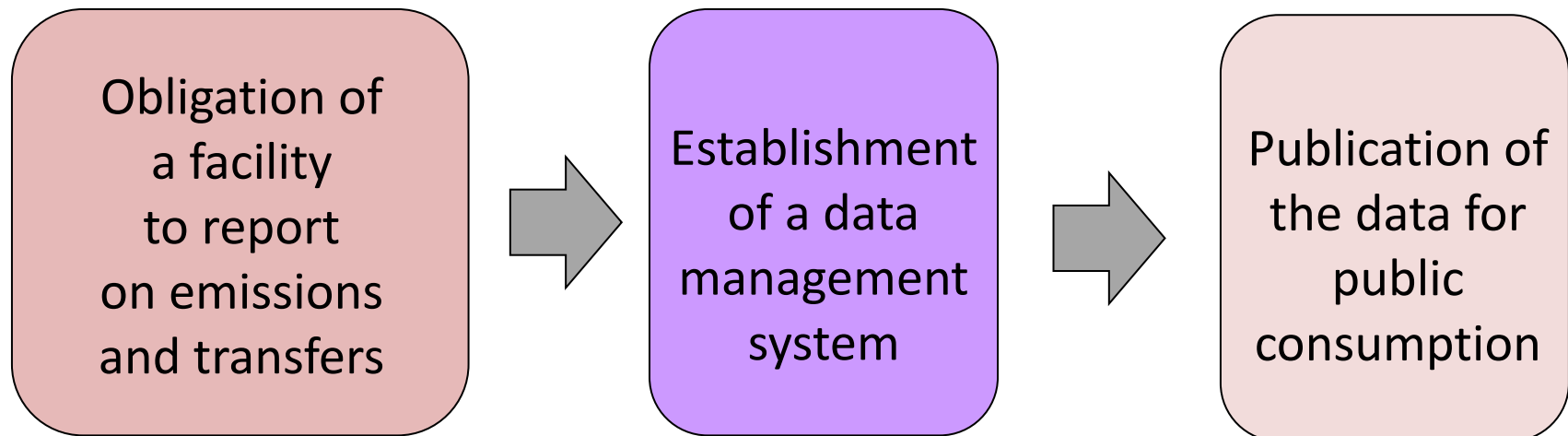
mirsham@sviva.gov.il

Israel's PRTR is based on international PRTR principles

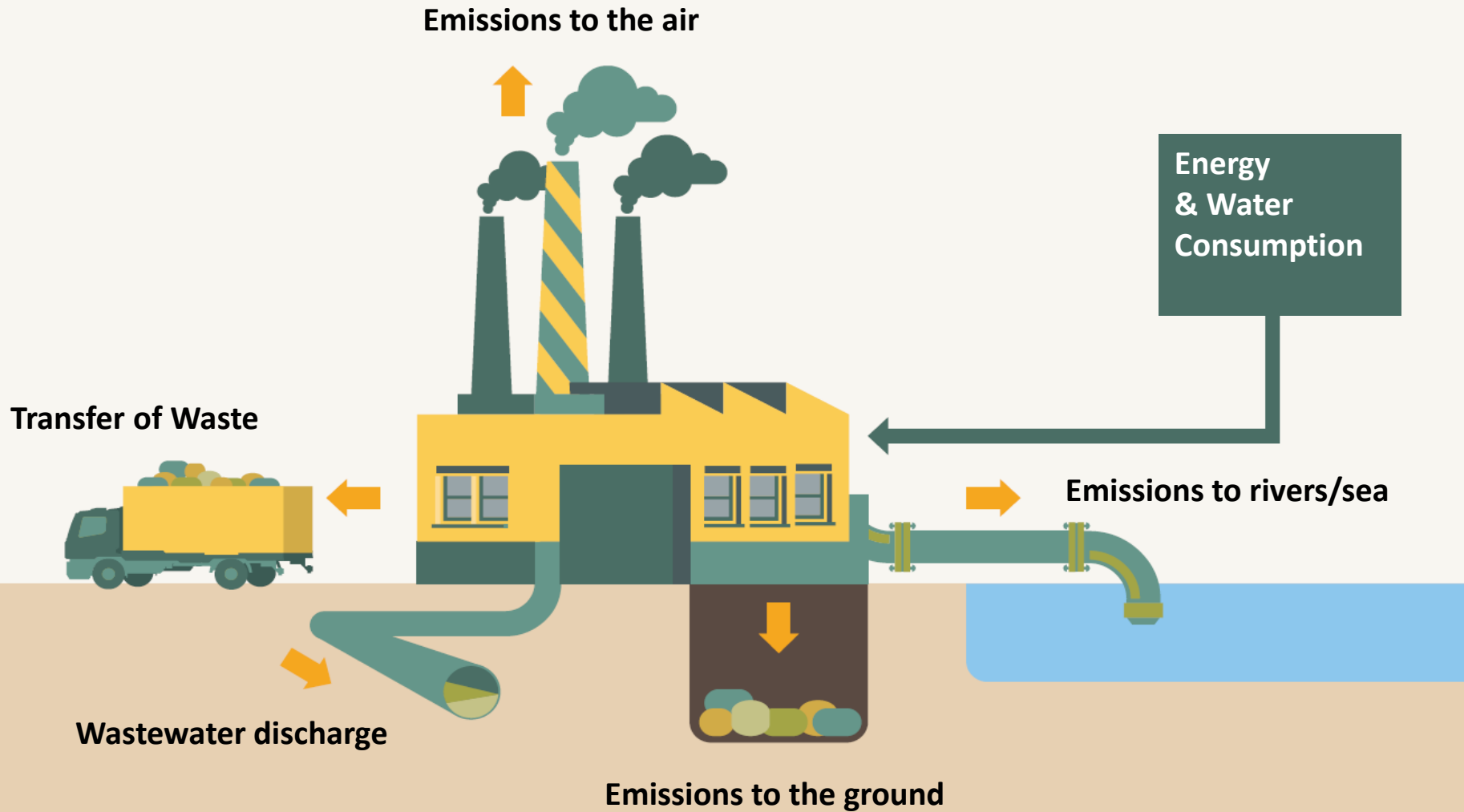
Israel has committed to implement a PRTR within the framework of the country's joining the OECD. The implementation was done by legislating the **Environmental Protection Law - Emissions and Transfers to the Environments – Reporting and Register Obligations, 2012**.

In addition Israel has ratified the UNECE's Kiev Protocol on PRTRs.

Main PRTR principles:



A PRTR report includes:

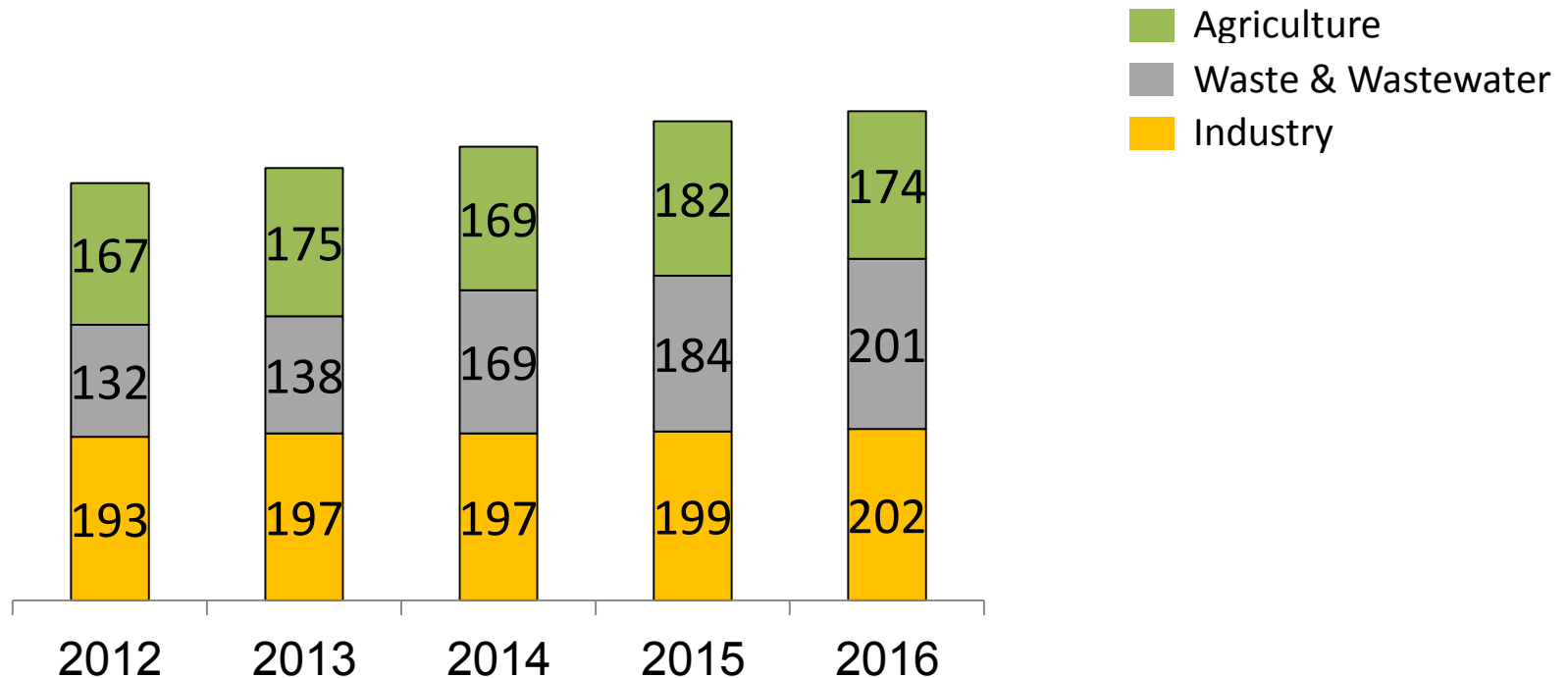


Who must report to the PRTR

Owners of facilities that carry out any of 74 activities named in the law, which have the potential to have an environmental impact. These include:

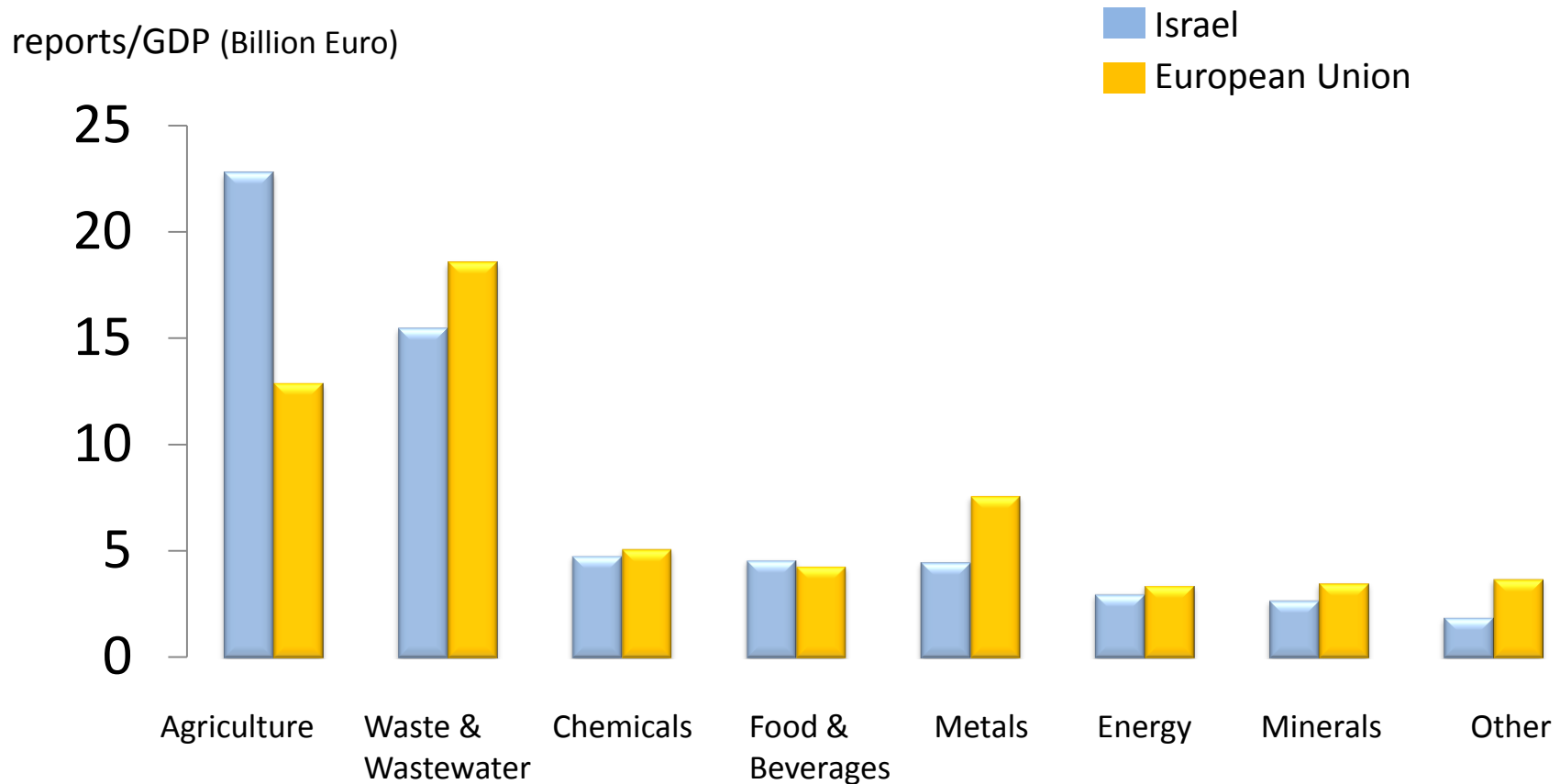
- Energy industry: power plants, oil refineries, gas production plants, etc.
- Chemicals industry: pharmaceuticals, fertilizers, pesticides, etc.
- Metals industry: Foundry, melting, galvanizing, metal plating, etc.
- Food and drinks industry, dairies, slaughterhouses, etc.
- Waste and wastewater: wastewater treatment plants, landfills, transfer stations, etc.
- Agriculture industry: chicken coops, pig farms, fish farms

Increase in number of facilities reporting to PRTR



The increase in the number of reports submitted is not, for the most part, due to an increase in business activities. It is mainly due to the MoEP's supervision and enforcement against non-reporting enterprises. In 2016, the MoEP imposed 7 financial sanctions for non-reporting. The energy sector had the largest increase in reports submitted, due to the establishment of new, private power plants and natural gas production plants, as well as of transfer stations for construction waste.

Number of facilities reporting to the PRTR in Israel and the EU (E-PRTR)



The data in the above graph does not include transfer stations, asphalt production, desalination, or gas production – which are not included in the European PRTR. The graph represents data from 2015, the last year that a European PRTR was published.

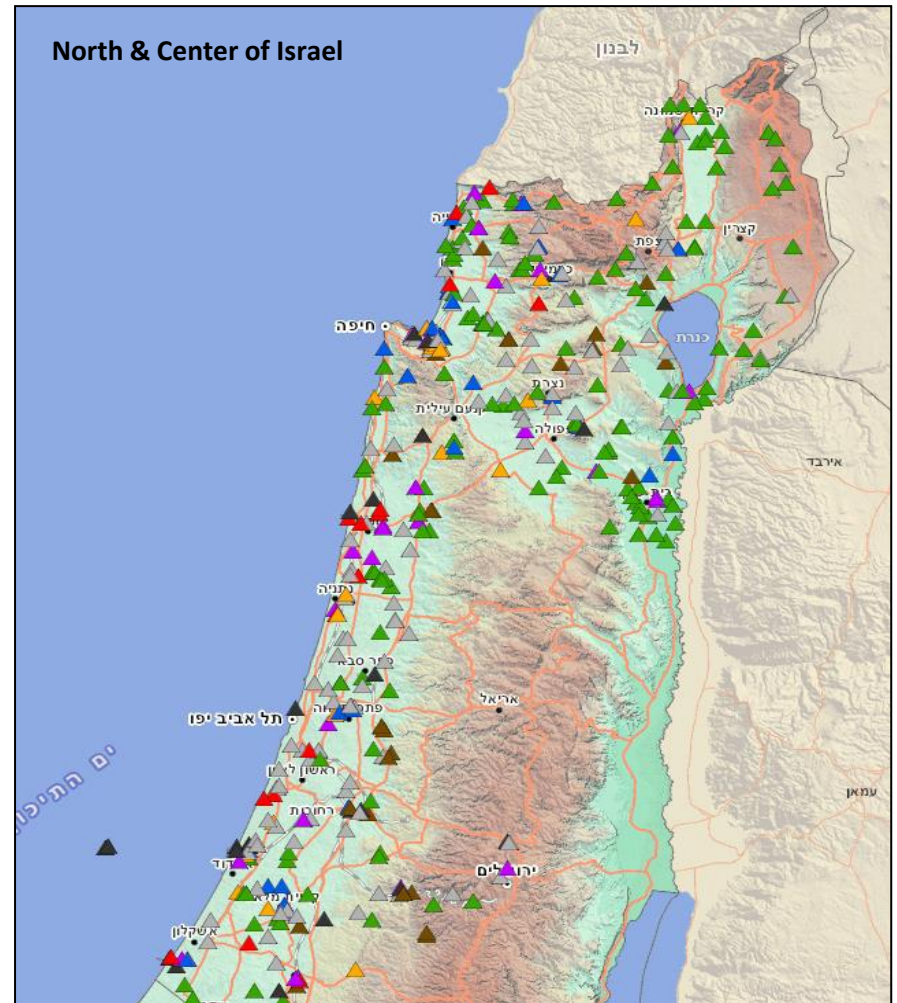
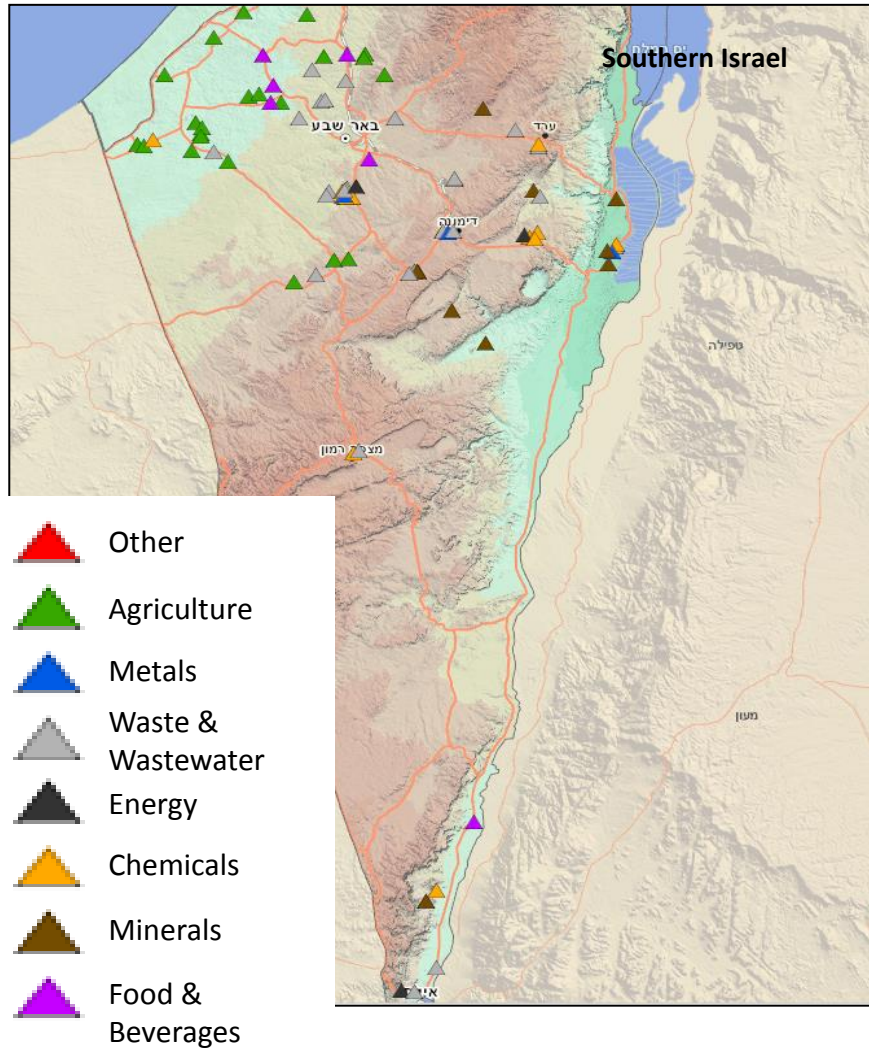
About the PRTR

The PRTR is published on the [Ministry of Environmental Protection's Hebrew website](#):

- The data is displayed geographically (on a GIS map), so that you can search for factories by location.
- For the first time, it is possible to conduct advanced data analysis by facility and/or pollutant, to compare between years, and more.

PRTRs GIS map


MoEP's website: <http://www.sviva.gov.il/PRTRIsrael>



PRTRs analytical tool

MoEP's website: <http://www.sviva.gov.il/PRTRIIsrael/Pages/PRTRanalytics.aspx>

פסולת
מזהמים
מפעלים
השוואת שנים
מבט על



חפש מפעל, ישוב או חומר מזהם

או השתמש בסינונים מצד ימין

כמות בק"ג ערך מנורמל לפי כמות הסף לדיווח

פליטות והזרמות לפי מחוז

פליטות והזרמות לפי מרכיב סביבה

פליטות והזרמות לפי מפעל

פליטות והזרמות לפי קבוצת מזהמים

פליטות והזרמות לפי מפעל

פליטות והזרמות לפי מפעל

מפעל	כמות בק"ג
מ"מי איזור דן אגודה ש	87,146,328
מ"איגוד ערים איזור חיפה (ביוב) מכון לטיהור שו	75,976,435
מתקן טיהור שופכין איילון בע"מ	16,086,654
מכון טיהור שפכים שורק	
מט"ש באר שבע- שדה תימן	

סינונים נוכחיים

שנה: 2016

סוג המפעל: סולת ושפכים < טיפול או סילוק שפכים, סולת ושפכים < טיפול

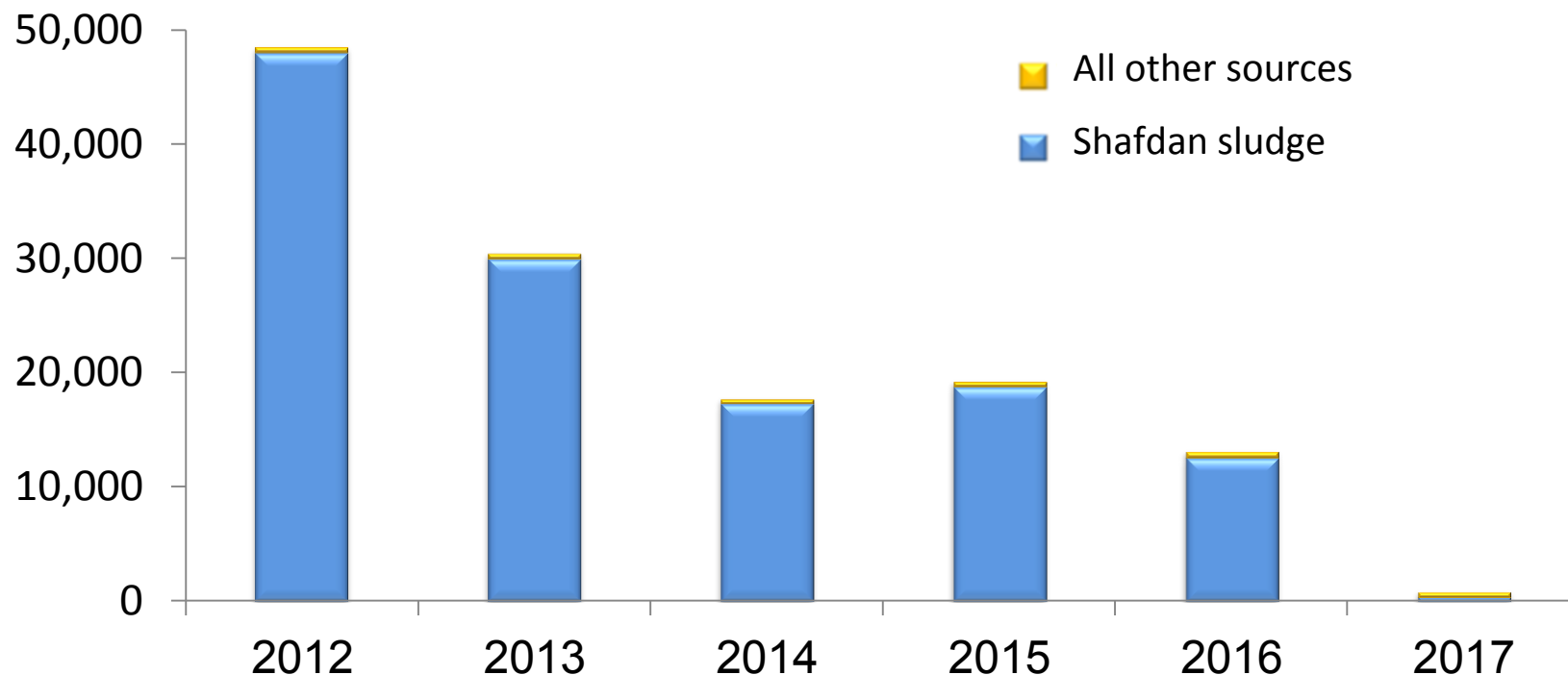
מרכיב סביבה: 2016, 2014, 2012, 2015, 2013

מיקום המפעל: אוויר, מקור מים, שפכים, ים, קרקע

סוג המפעל: מחוז דרום, מחוז חיפה, מחוז ירושלים, מחוז מרכז, מחוז צפון, מחוז תל אביב, מרחב ימי

Discharge to the sea of Total Organic Carbon (TOC)

Tons/Year

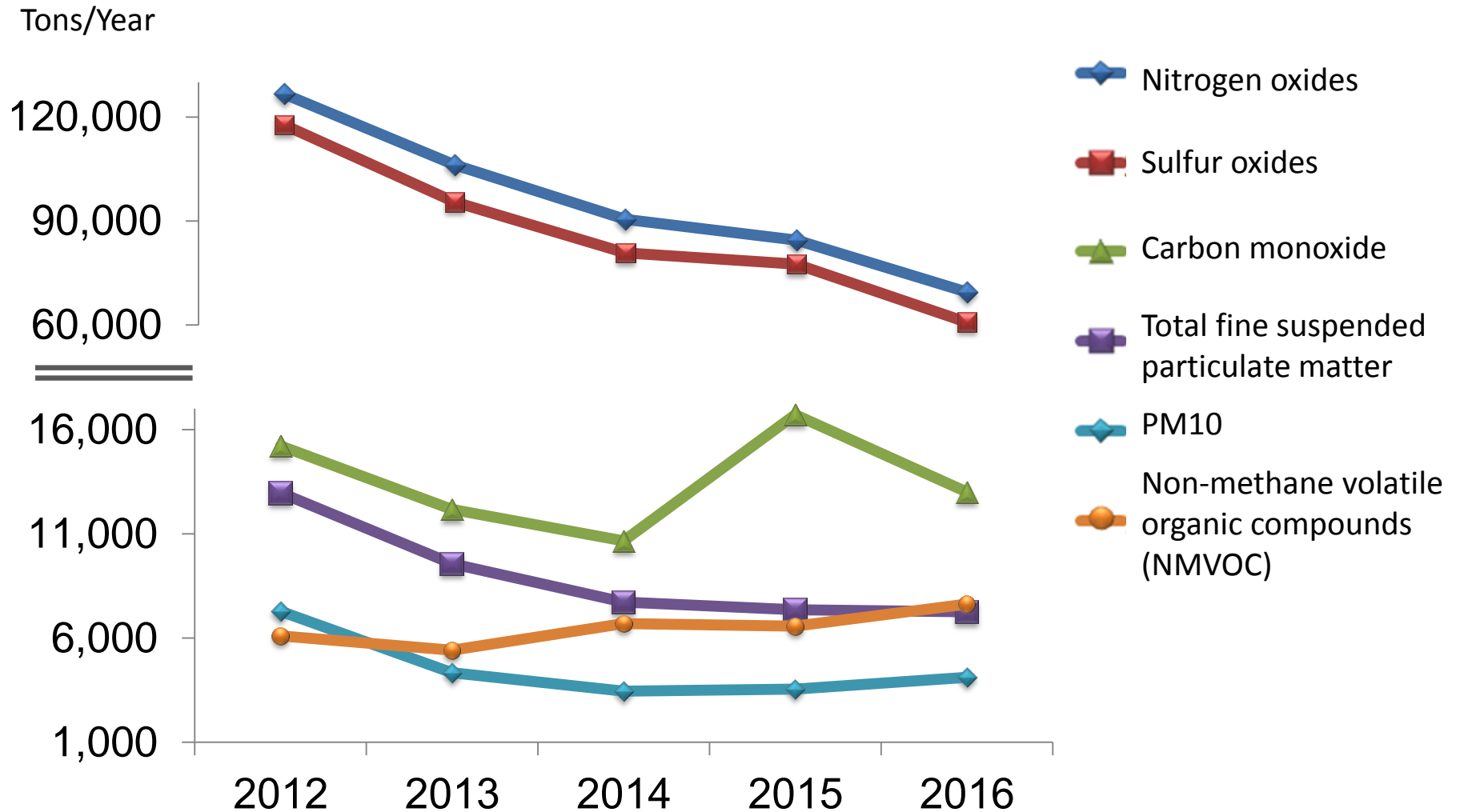


- The main source (more than 95%) of TOC discharge to the sea (Mediterranean, Dead Sea, Haifa Bay, and the Kishon River) in 2016 is Shafdan sludge.
- This discharged ceased on Feb. 6, 2017, when the sludge was transferred to the new anaerobic digestion facility and the En-Viro facility, for distribution as agricultural fertilizer.

NBB & PRTR

	NBB/ NBP 2012	PRTR
Streams & Rivers - runoff, waste water, and effluent discharge.	+	-
Point source - direct discharge to streams, river and seawater. Also includes air emissions.	+	+
Atmospheric loads	+	-
Landfills - runoff and leachate flow	+	-
Transportation - mainly airborne nitrogen and sulfur oxides	+	-
Municipal runoff	-	-
Waste water overflow during winter storms	-	-

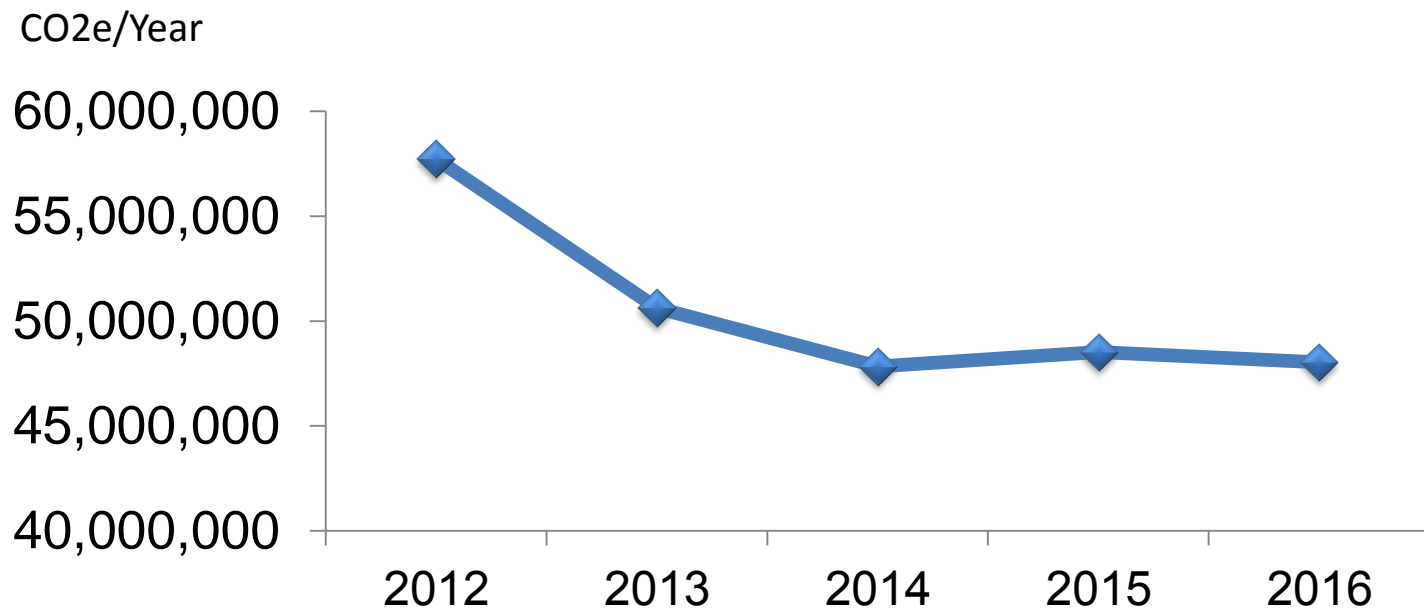
Trend in pollutant emissions to the air



Graph does not include Noble Energy Mediterranean natural gas rigs since they are located in the sea.

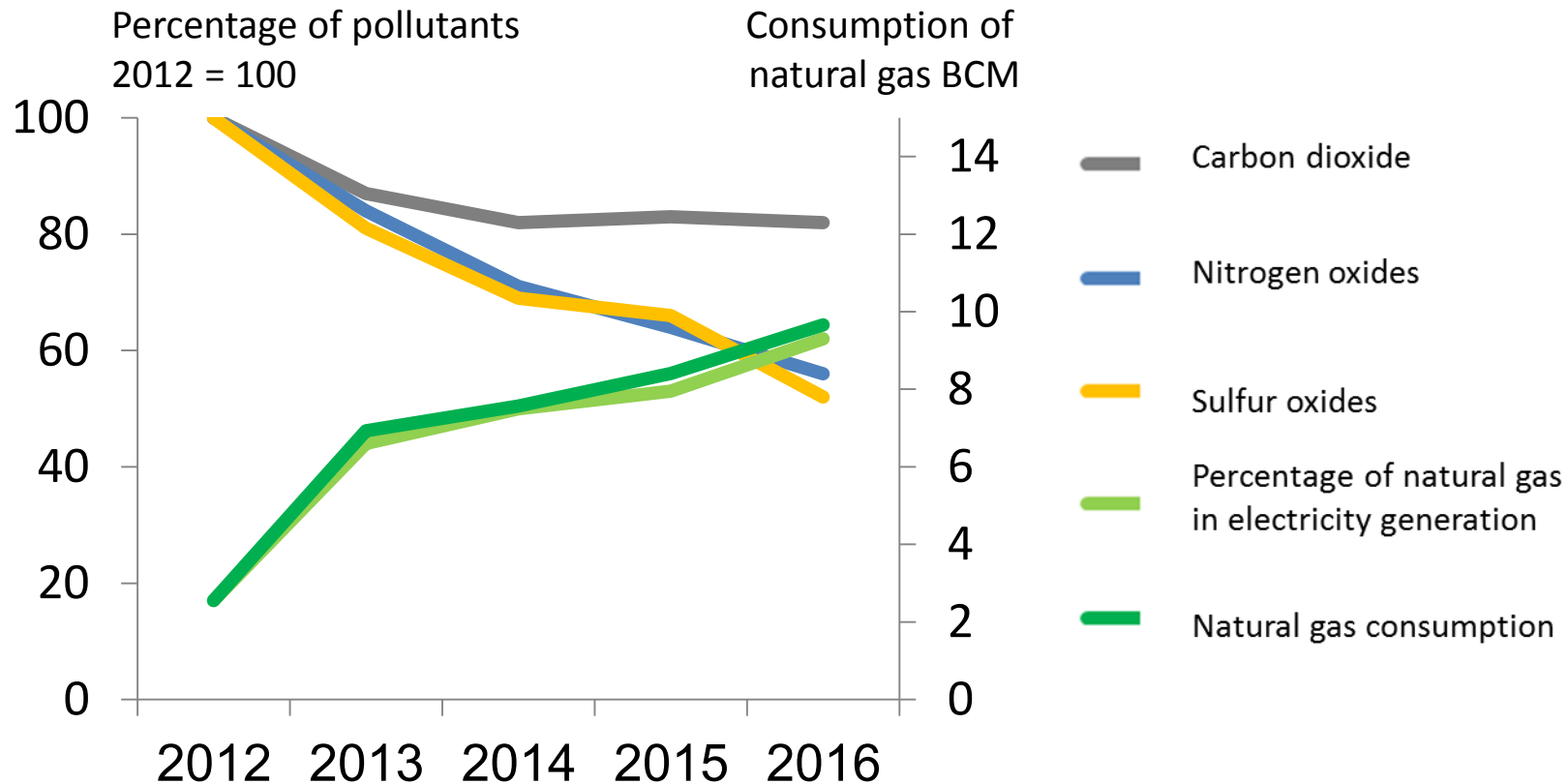
Decrease in greenhouse gas emissions to air

Since 2012 there has been a 17% decrease in greenhouse gas emissions reported to the PRTR.



Greenhouse gases include: Carbon dioxide, Methane, Nitrous oxide, HFCs, PFCs, SF₆

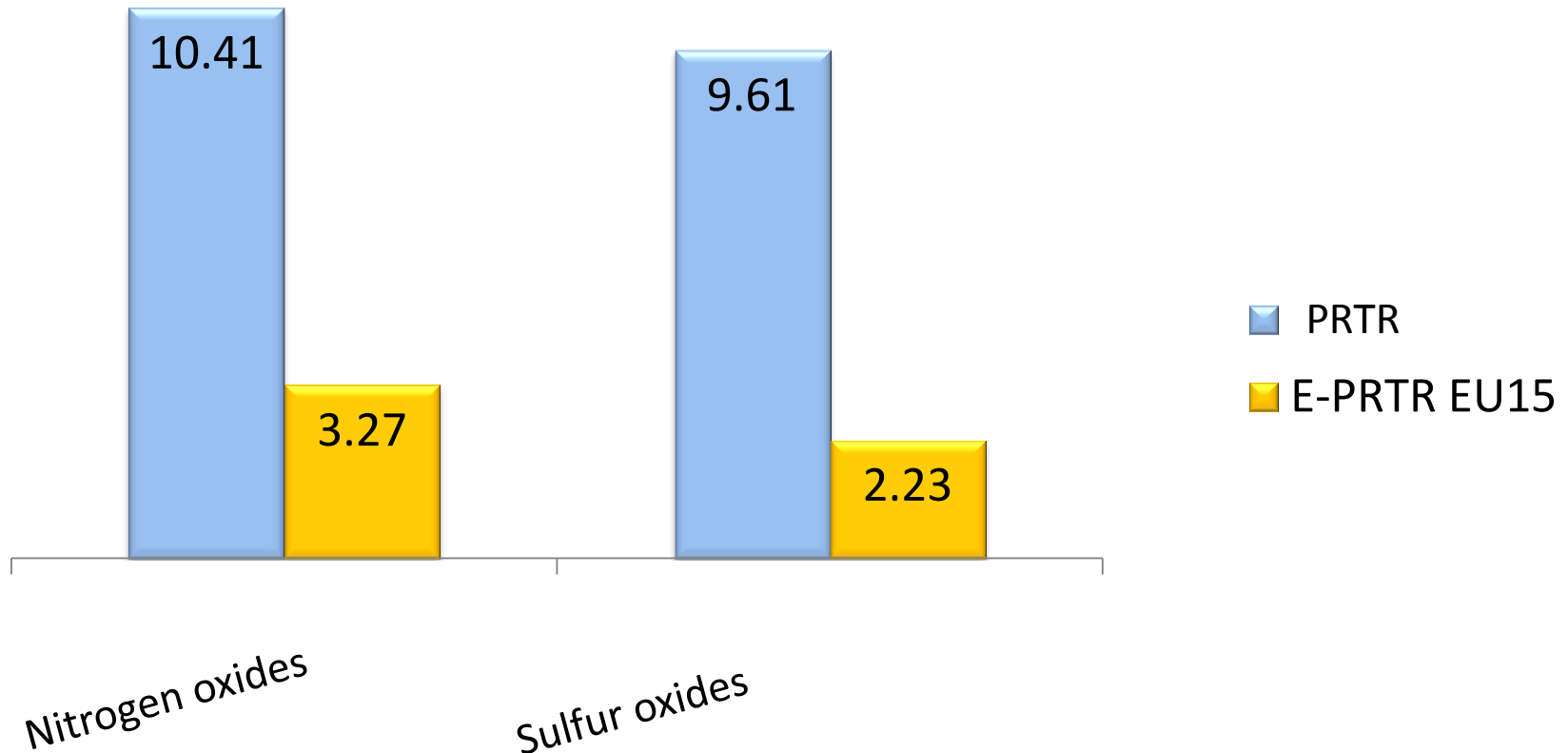
Reduction in air emissions due to natural gas use



Source for data: 2016 reports of Natural Gas Authority and Israel Electric Corp.

Emissions from electricity generation are still high, when compared to the European Union

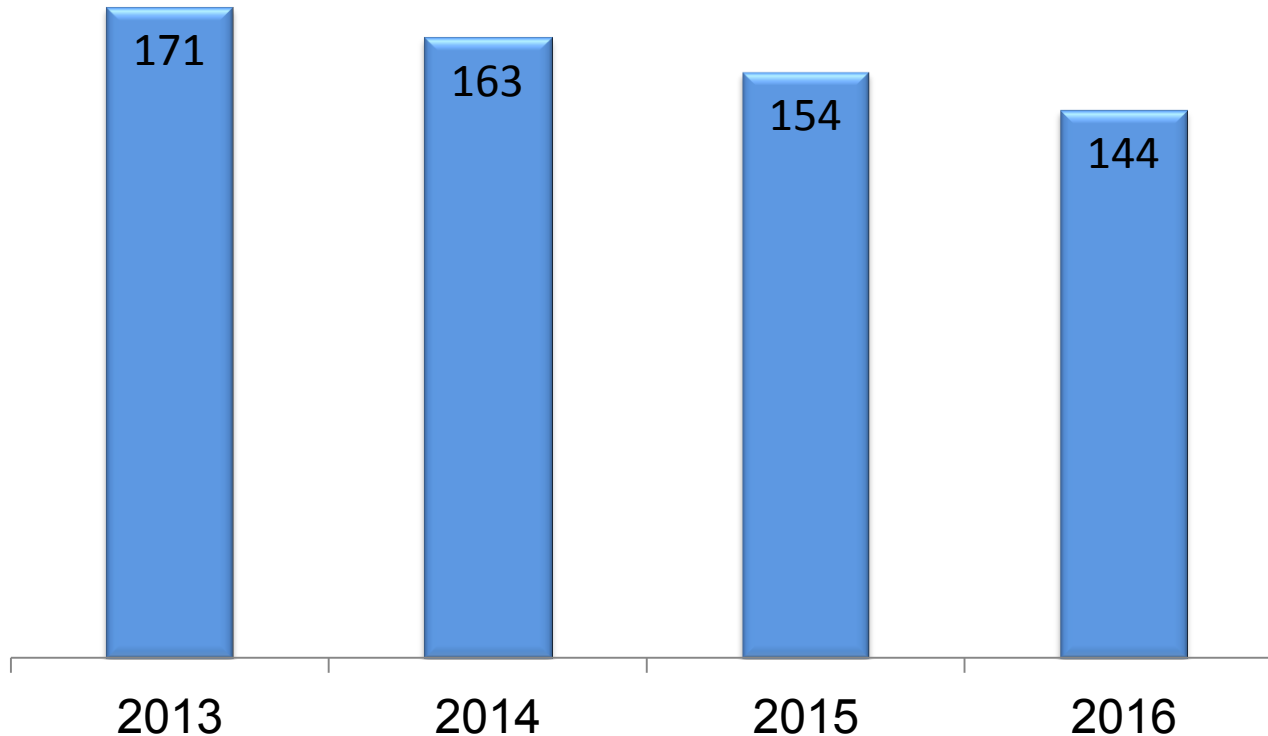
Kg/person



Despite the continuous decrease in emissions of nitrogen oxides and sulfur oxides to the air, per capita emissions in Israel are still 3 times higher than in EU 15 countries. This is due to emissions from coal power plants, where units are still operating without the abatement measured required by European standards. The figure shows 2015 data, the most recent published in the E-PRTR.

Discharge of brine in effluents of wastewater treatment plants

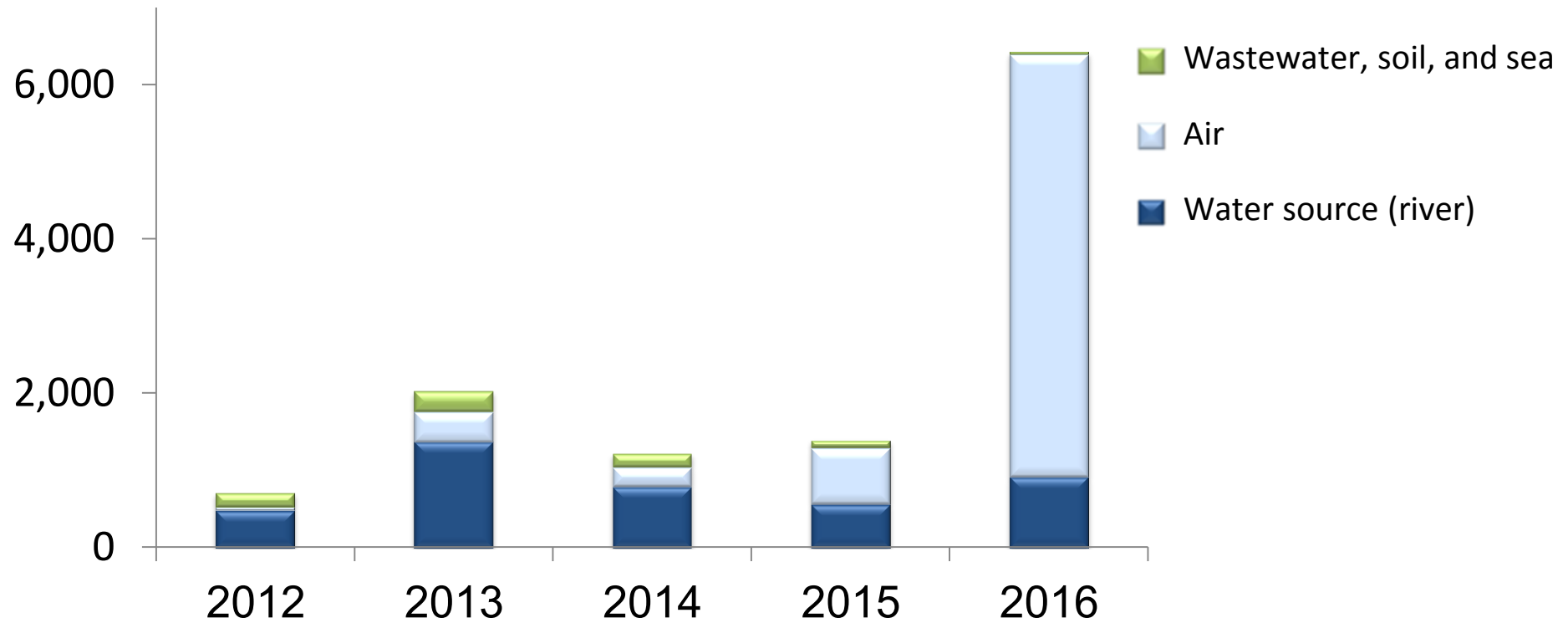
Thousands of tons/Year



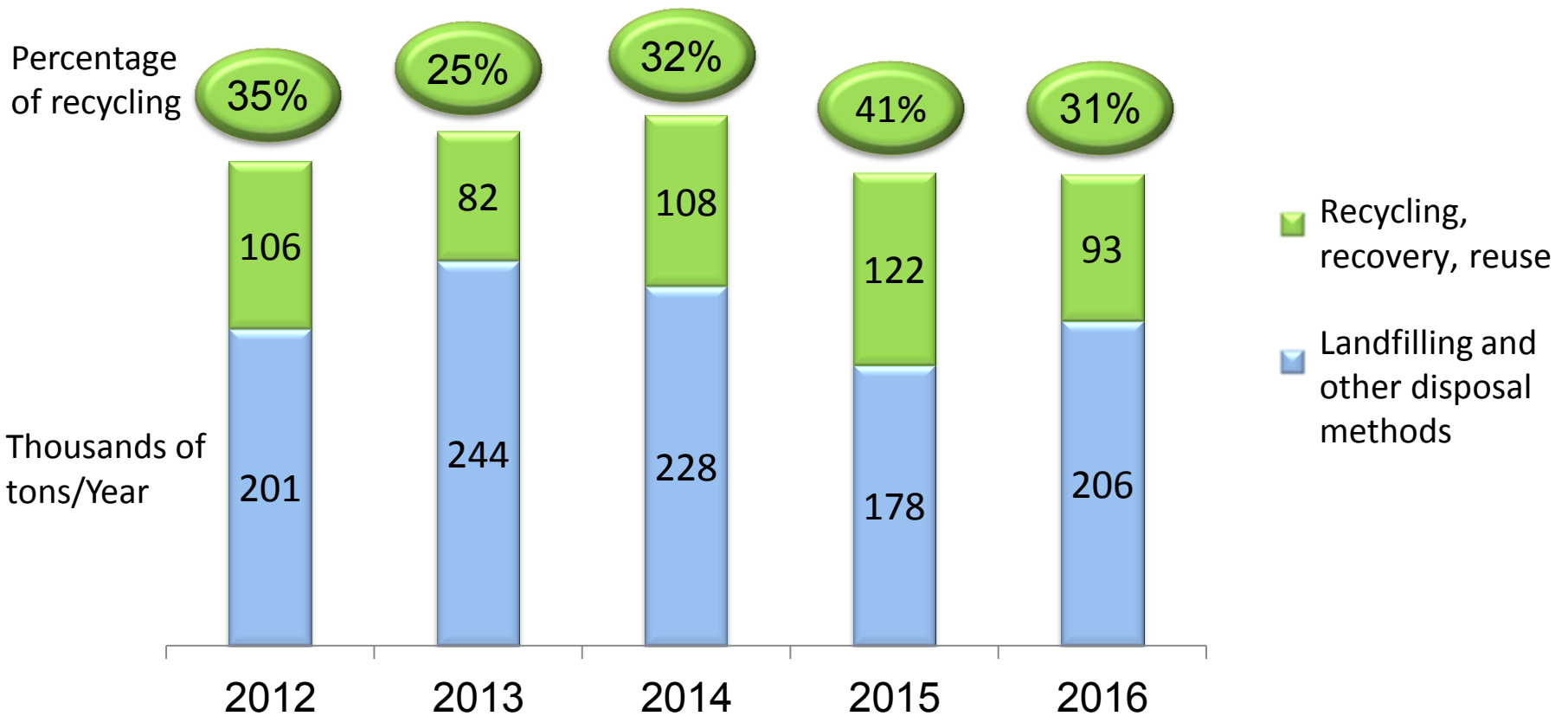
The amount of brine (chloride and sodium) that was discharged into wastewater treatment plants for agricultural irrigation and into streams decreased by 16% between 2013 and 2016. The apparent reason for this drop is the increase in the use of desalinated water (with low salinity) in supply water – up to 50% of the quantity of fresh water supplied to all consumers. This is despite the fact that the number of wastewater treatment plants that report to the PRTR increased from 59 in 2013 to 69 in 2015.

Emissions and discharges that occurred during malfunctions

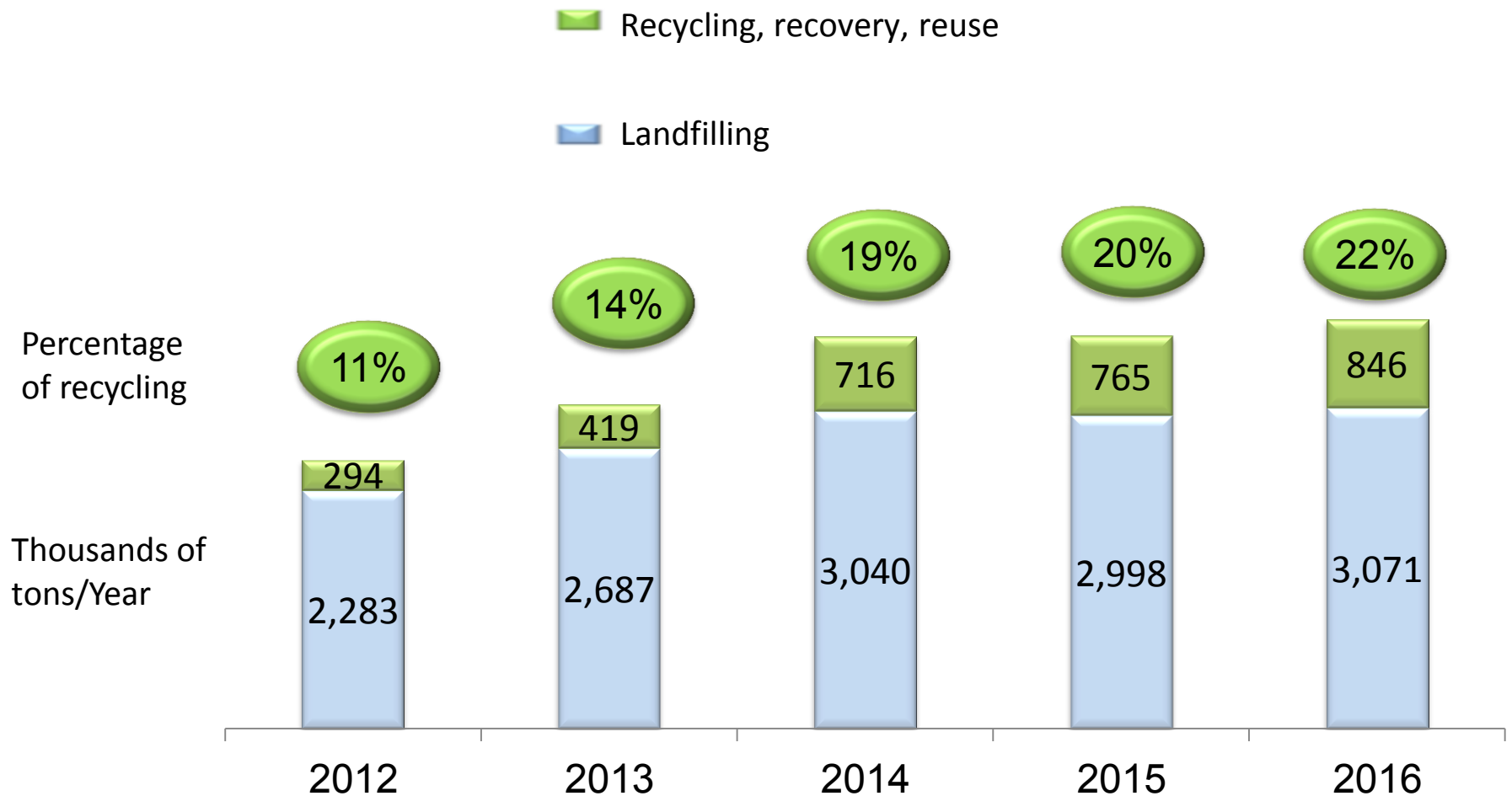
Tons/Year



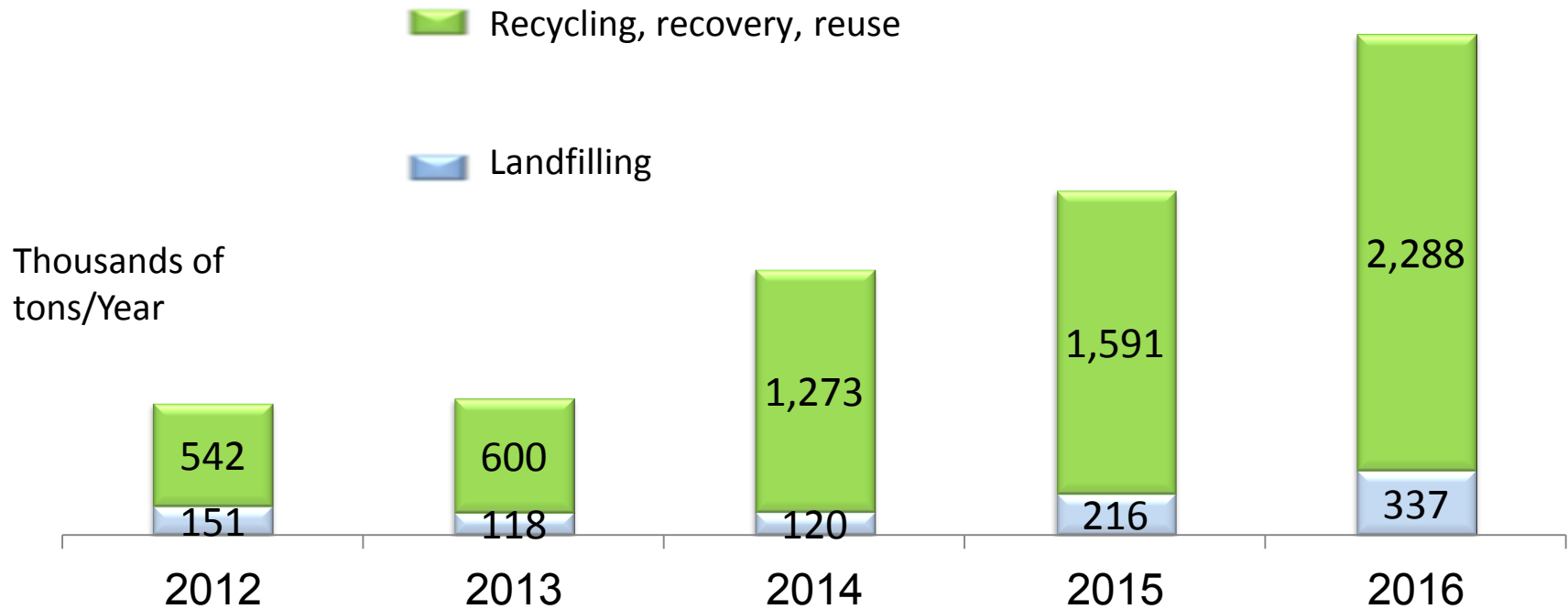
Transfer of hazardous waste



Increase in percentage of municipal mixed waste that is recycled

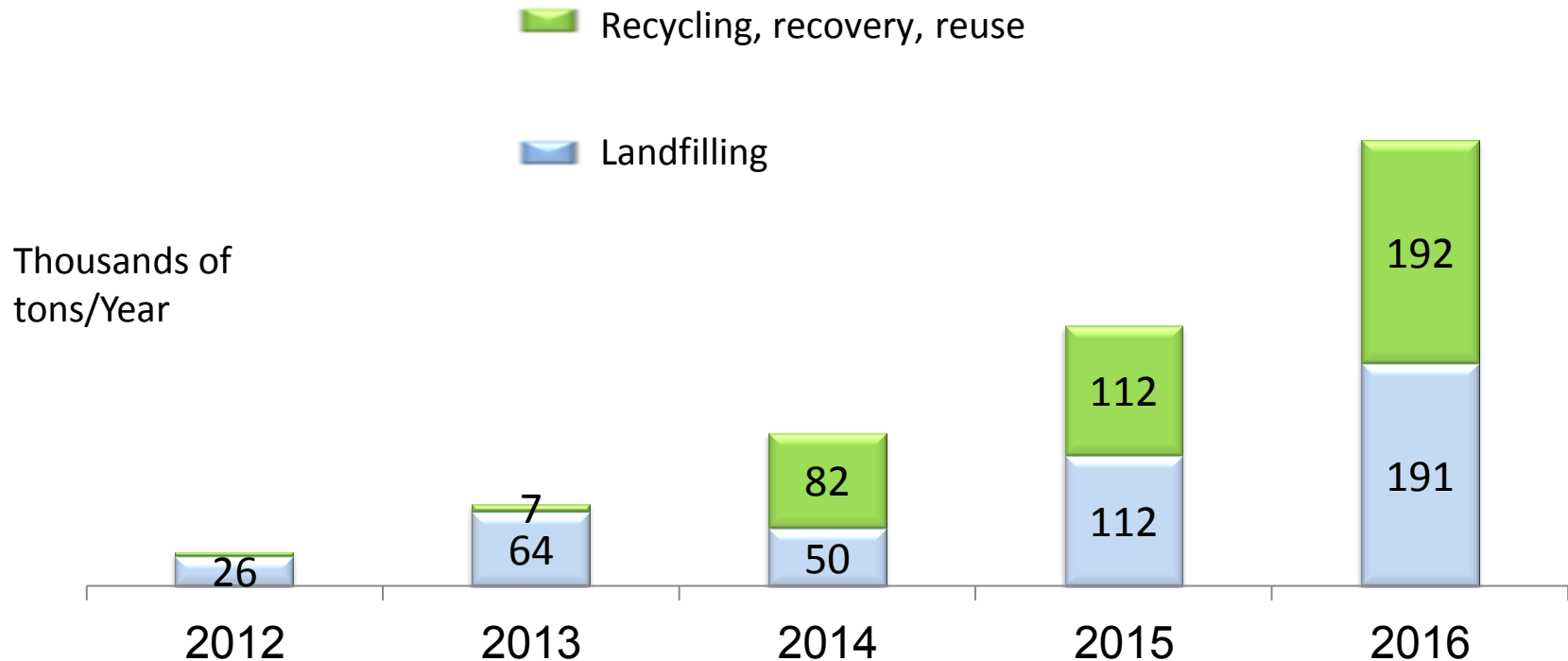


Increase in amount of construction waste in transfer stations



- The amount of construction waste transferred from transfer stations increased by some 1.2 million tons in the last 2 years, as a result of the establishment of new transfer stations and increased supervision and enforcement activities of the Ministry of Environmental Protection.
- The increase in the amount of waste between 2012 and 2014 is a result of an increase in the number of transfer stations that report to the PRTR, as well as improved reporting.

Transfer stations for solid waste



Solid waste is collected mainly in industrial areas, and includes: waste metal, wood, plastic, and packaging waste.

The increase in the amount of waste is due to an increase in the number of stations that reported to the PRTR, from 5 stations in 2012 to 12 stations in 2016.

PRTR Data Quality Control

New Guidelines

Aim: to improve the use and applicability of PRTR data

Objectives:

1. Improved PRTR Data Quality Control by the application of a uniform methodology consistently applied.
2. Defining responsibilities among MoEP units.
3. Internal dissemination of PRTR data - Identification of “**red flags**”, for further inspection by the competent authority.

“**red flag**” – situation where the PRTR information raises concerns of non compliance, or points to a change in the facility’s operation. This determination will be made where the results of the Annex A checklist are positive (see next slide).

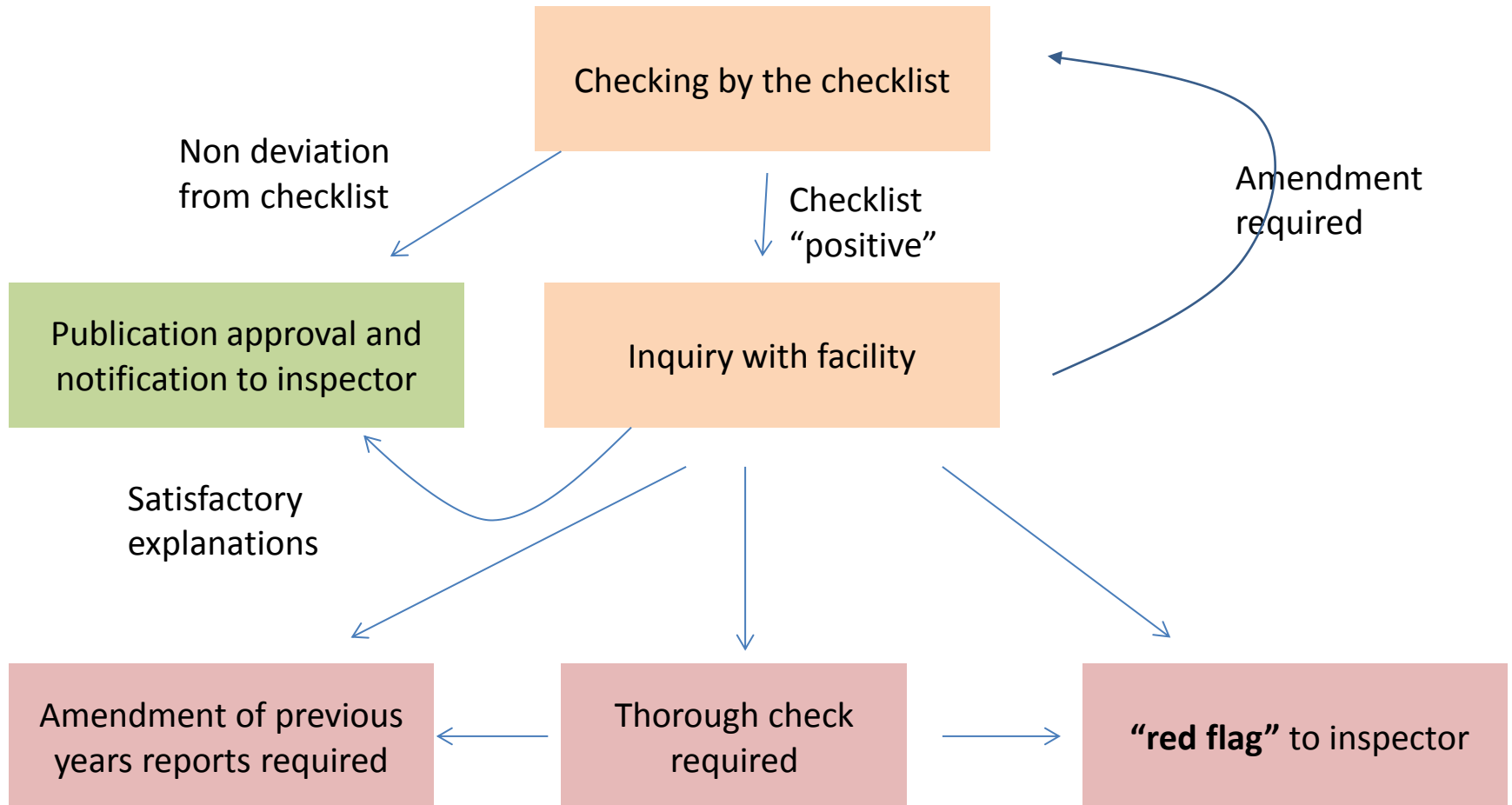
PRTR Data Quality Control

New Guidelines

Annex A (partial) - Checklist for PRTR reports checking and “red flag” criteria

Completeness check (partial):	
General details: activity, owner etc.,	
Lack or incorrect reporting of pollutants or waste transfer	
Lack of reporting on accidental release, where the MoEP’s Emergency Center documented that release	
Consistency check – change in quantities in comparison with previous year	
Water or energy consumption	Over 20%
Emissions or transfer of carcinogenic pollutant	Over 20%
Emissions or transfer of non carcinogenic pollutant	Over 50%
Transfer of hazardous waste	Over 50%
Transfer of non hazardous waste	Over 80%
Identical quantities	

PRTR Data Quality Control New Guidelines



PRTR Data Quality Control - New Guidelines

Conclusion of implementation

