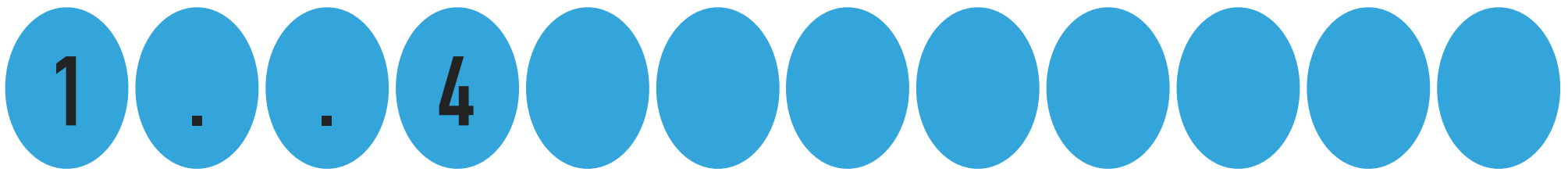




Photo of Nicolas Brulois on Unsplash

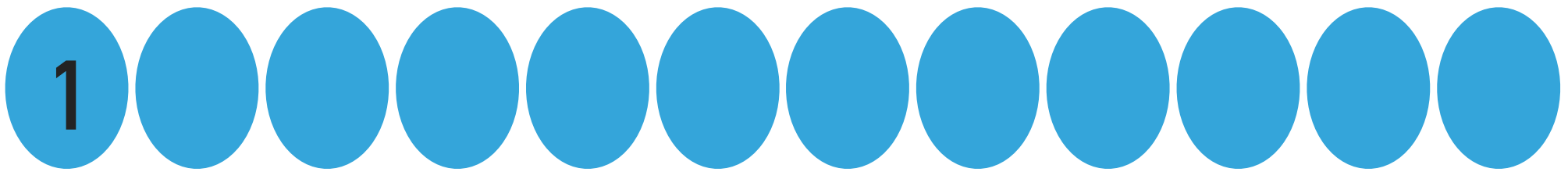
CONTROL OF PROGRESS

**BEST AVAILABLE
TECHNOLOGIES
IN GENERAL**



OVERVIEW

1. The European directive on operating permits
2. BAT reference documents (BREF) for sectors
3. IEA indicators on Energy Efficiency for 38 countries
4. Conclusion



THE EUROPEAN DIRECTIVE ON OPERATING PERMITS

1.

IPCC = Intergov. Panel ClimChange



EC = European Commission



MS = Member States



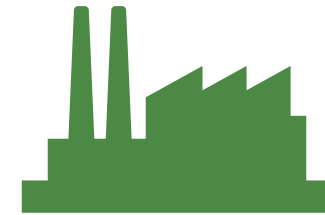
Industries (not all)

<https://www.iea.org/policies/1347-best-available-techniques-reference-documents-brefs-ipcc-directive>

2.

EC Directive 96/91:

Member states: permits for industry



3.

Permits based on BAT

How? Parameters must be like BAT



4.

The standards are responsibility of MS



EC organises communication MS



BAT REFERENCE DOCUMENTS (BREF) FOR SECTORS

Integrated Pollution Prevention and Control (IPPC, not IPCC!).

Run by the EIPPCB in Sevilla (Spain) for organising information exchange of BAT

<https://eippcb.jrc.ec.europa.eu/reference>

<https://eippcb.jrc.ec.europa.eu/reference/production-polymers>

Reference Documents

The table below presents, in alphabetical order, the list of reference documents that have been drawn (or are planned to be drawn) as part of the [exchange of information](#) carried out in the framework of Article 13(1) of the [Industrial Emissions Directive \(IED, 2010/75/EU\)](#).

[Show more](#) ▾

| Name | Code | Adopted/Published Document | Formal draft |
|--|------|-------------------------------------|------------------------------|
| Ceramic Manufacturing Industry | CER | BREF (08.2007) | |
| Common Waste Gas Treatment in the Chemical Sector | WGC | | D1 (11.2019) |
| Common Waste Water and Waste Gas Treatment/Management Systems in the Chemical Sector | CWW | BREF BATC (06.2016) | |
| Economics and Cross-media Effects | ECM | REF (07.2006) | |
| Emissions from Storage | EFS | BREF (07.2006) | |

BAT for polyvinyl chloride is

- to use appropriate storage facilities for the VCM to prevent leaks and resulting air, soil and water pollution
 - to store VCM in refrigerated tanks at atmospheric pressure
 - to store VCM in pressurised tanks at ambient temperature
 - to avoid VCM emissions by providing appropriate ventilation and/or
 - to avoid VCM emissions by providing appropriate treatment system or to appropriate vent treatment equipment
- to prevent emissions from connections when used
 - use of vapour balance lines and/or
 - evacuation and treatment of VCM from connections

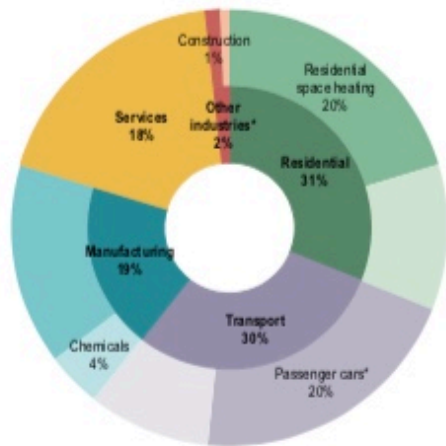
IEA INDICATORS ON ENERGY EFFICIENCY FOR 38 COUNTRIES

<https://webstore.iea.org/energy-efficiency-indicators-2020-highlights>

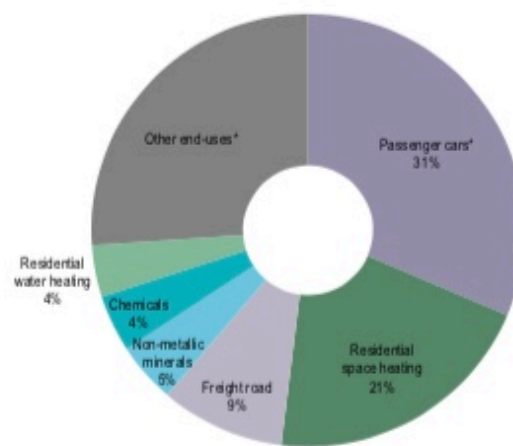
SWITZERLAND

Cross-sectoral overview

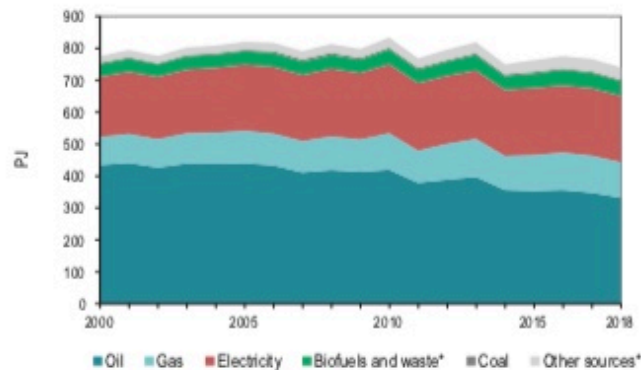
Largest end-uses by sector, 2018



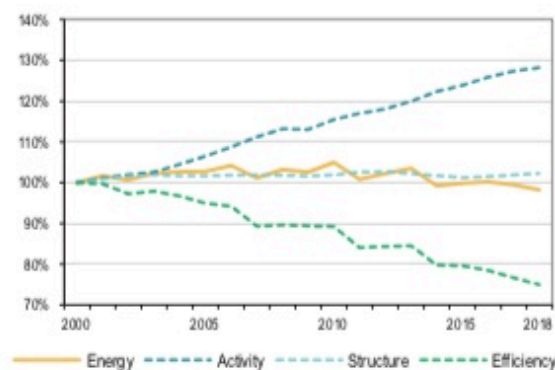
Top six CO₂ emitting end-uses, 2018**



Final energy consumption by source

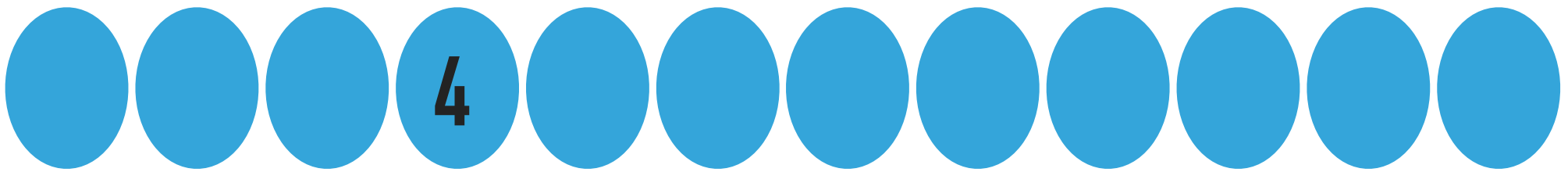


Drivers of final energy consumption***



Estimated energy savings from efficiency***

Estimated cumulative energy savings by sector, 2000-18***



CONCLUSION

- Goal setting in India similar?
 - Not year & limit but to KPI and BAT
- I have a newsletter with every 2 weeks a highlight on a BAT
- Opinion:
 - Energy Manager essential for maintaining focus on BAT
 - Hunting opportunities
 - Analysing potential results
 - Proposing in an appealing way to Decision Makers
 - Realising
 - Monitoring

TEXT
