



PORTUGUESE  
ENVIRONMENT  
AGENCY

# NATIONAL AIR STRATEGY FOR 2020 (ENAR2020)

Filipa Marques  
Technical Officer



REPÚBLICA  
PORTUGUESA  
ENVIRONMENT

# ENAR 2020: VISION

Assess

Anticipate

Act

To improve air quality for  
human health, life-quality  
protection and ecosystems  
preservation

# ENAR 2020: OBJECTIVES

1. To achieve compliance on emissions and air quality objectives by 2020;
2. To achieve compliance with emission legislation (NEC, MIC,...) by 2020 and 2030;
3. Outline the path to achieve WHO's air quality long term objectives;
4. Align and enhance synergies between climate change and air quality by implementing measures with co-benefits;

# ENAR 2020: CONTENTS

## Summary Report and Support Documents



Scope and Background



Emissions and Air Quality  
Scenarios and Projections by  
2020



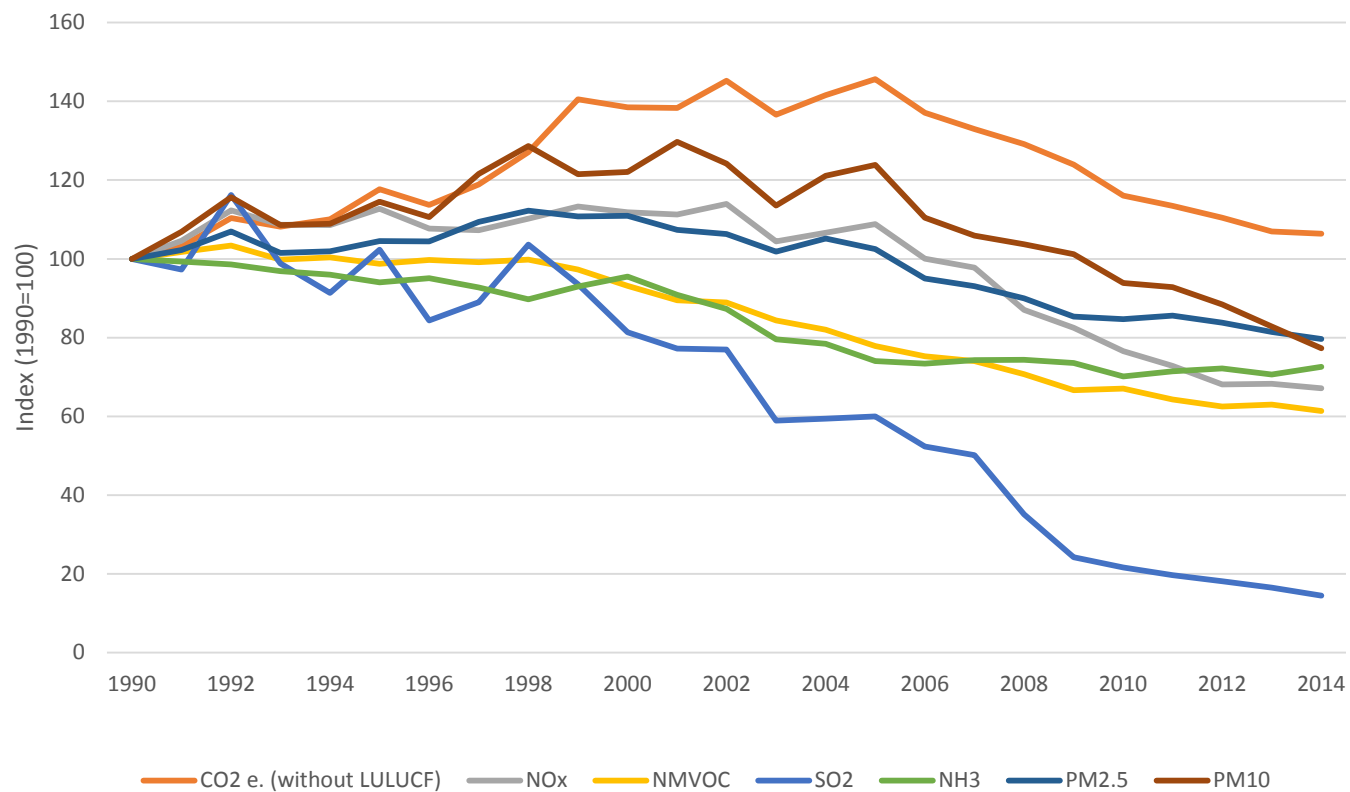
Strategic Action Lines for  
2020

# ENAR 2020: AIR POLLUTANT TRENDS

|   | NO <sub>2</sub>   | PM <sub>10</sub>   | O <sub>3</sub>  |
|---|---|--|---|
| <b>Mean concentrations tendency 2003-2012</b><br><br>T – Traffic<br>I – Industrial<br>F – Background<br>RF – Rural Background |   |  |   |
| <b>Compliance 2012</b>  | <p>Situação face ao valor limite anual (VIA) em 2012</p> <ul style="list-style-type: none"> <li>Zona &lt;VIA</li> <li>Zona &gt;VIA</li> </ul> | <p>Situação face ao valor limite diário (VLD) em 2012</p> <ul style="list-style-type: none"> <li>Zona &lt;VLD</li> <li>Zona &gt;VLD</li> </ul> | <p>Situação face ao valor alvo (VA) em 2012</p> <ul style="list-style-type: none"> <li>Zona &lt;VA Saúde e Vegetação</li> <li>Zona &gt;VA Saúde</li> <li>Zona &gt;VA Saúde e Vegetação</li> <li>Zona sem monitorização</li> </ul> |
| <b>Summary</b>  | Traffic hotspots  | Urban areas  | Urban and rural areas   |

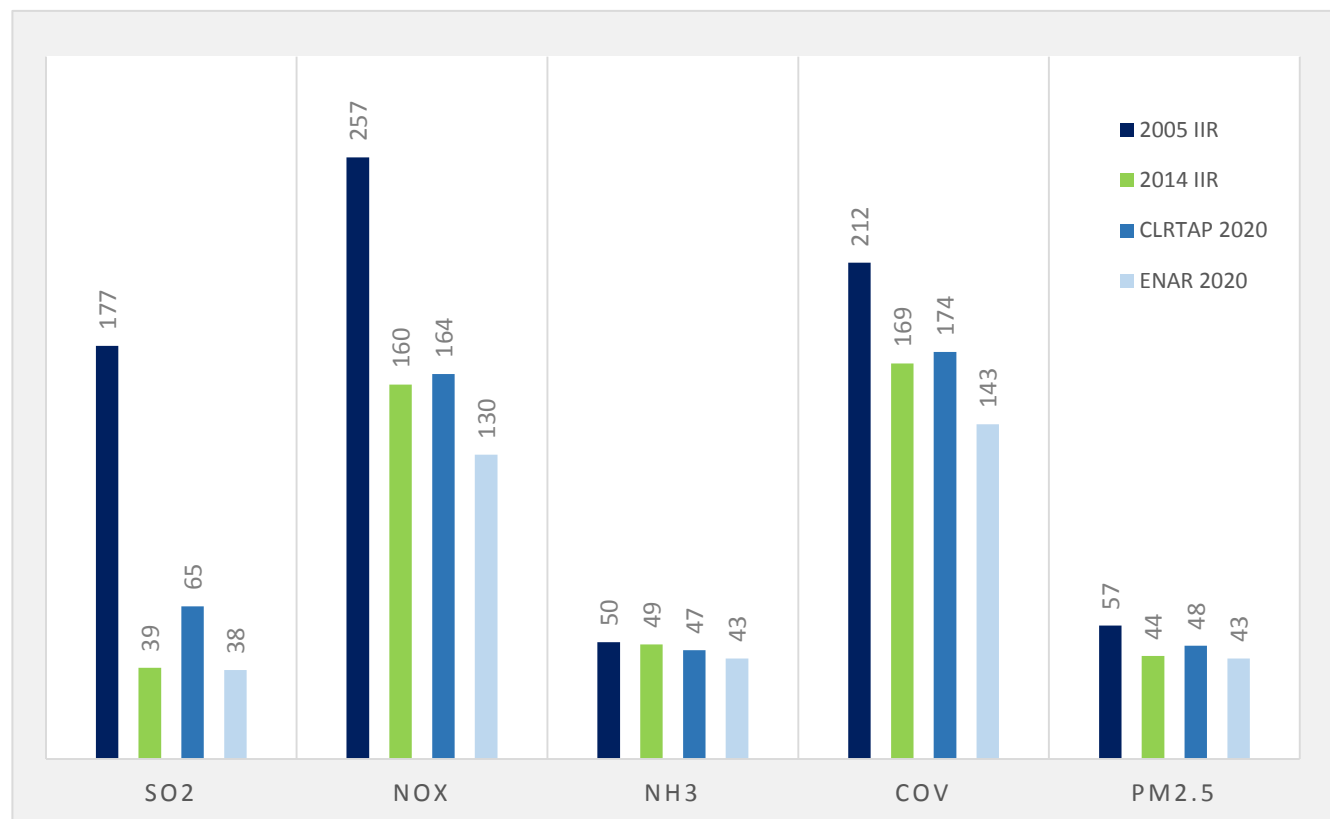
# ENAR 2020: ATMOSPHERIC EMISSION TRENDS

## EMISSION TRENDS: GHG and Air Pollutants



| Pollutant               | Δ 2014-1990 | Δ 2014-2005 |
|-------------------------|-------------|-------------|
| CO2 e. (without LULUCF) | 6%          | -27%        |
| NOx                     | -33%        | -38%        |
| COVNM                   | -39%        | -21%        |
| SO <sub>2</sub>         | -86%        | -76%        |
| NH <sub>3</sub>         | -27%        | -2%         |
| PM <sub>2.5</sub>       | -20%        | -22%        |
| PM <sub>10</sub>        | -23%        | -38%        |

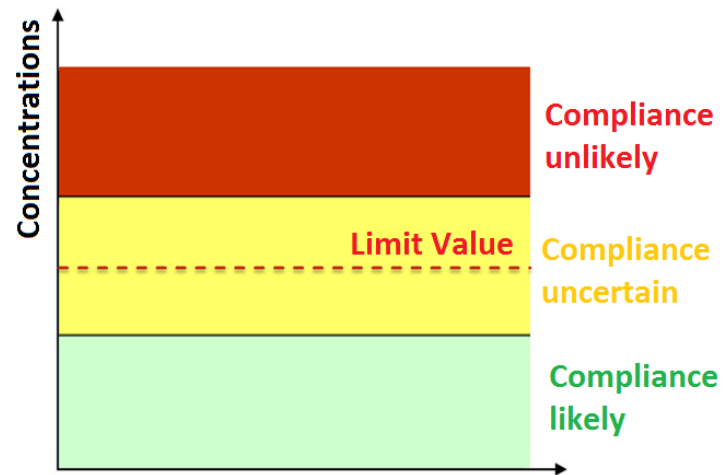
# ENAR 2020: EMISSIONS PROJECTION FOR 2020 - RESULTS



| Pollutant         | GP (2020) | ENAR (2020) |
|-------------------|-----------|-------------|
| SO <sub>2</sub>   | 63%       | 78%         |
| NO <sub>x</sub>   | 36%       | 49%         |
| NH <sub>3</sub>   | 7%        | 14%         |
| VOC               | 18%       | 33%         |
| PM <sub>2.5</sub> | 15%       | 25%         |

- Projections for 2020 assuming that all Policies & Measures programmed until this date will enter into force
- CLRTAP 2020 (Gothenburg Protocol) – Reduction goals to be met by 2020

# ENAR 2020: AIR QUALITY MODELLING - RESULTS



modeled results clearly above the limit/target value

modeled results around the limit/target value  
(± 20%)

modeled results clearly below the limit/target value

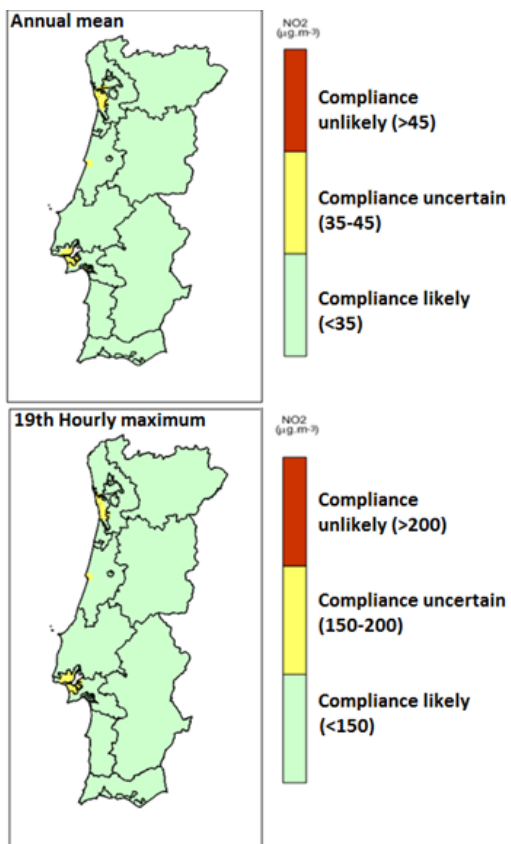


# ENAR 2020: AIR QUALITY MODELLING 2020- RESULTS

2020

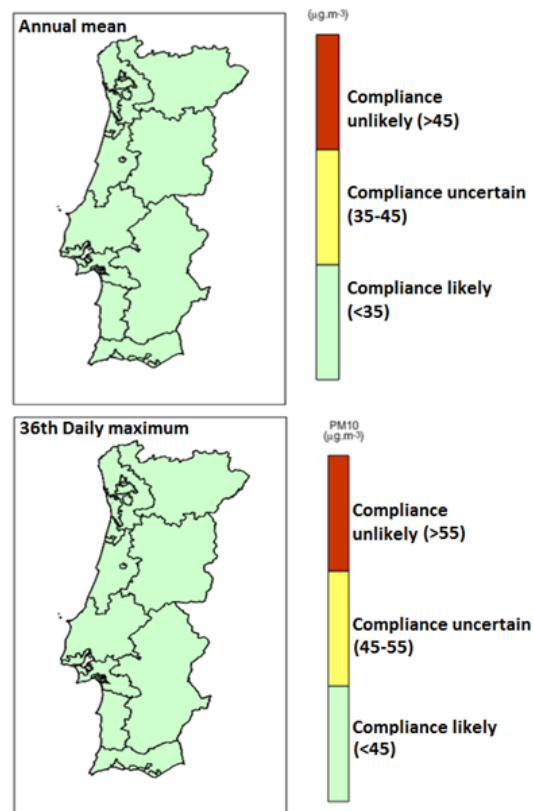
## NO<sub>2</sub>

Compliance uncertain  
in urban areas



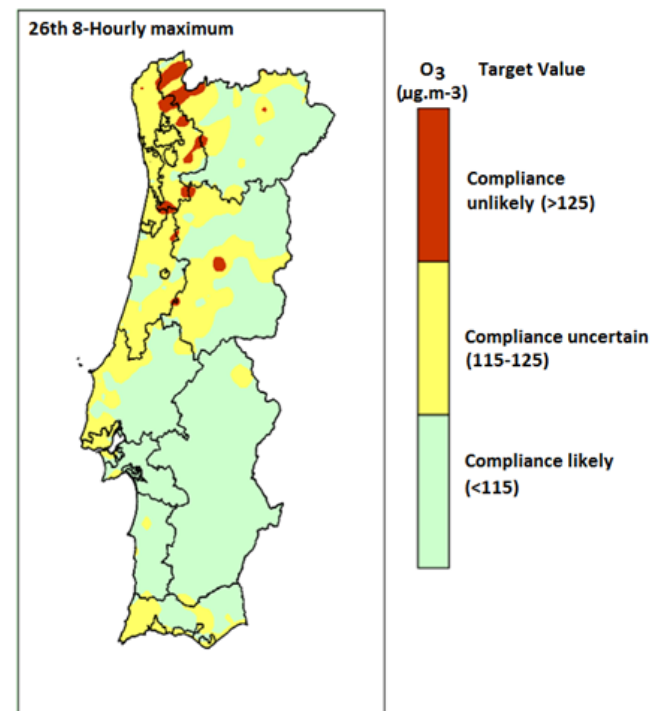
## PM<sub>10</sub>

Compliance likely



## O<sub>3</sub>

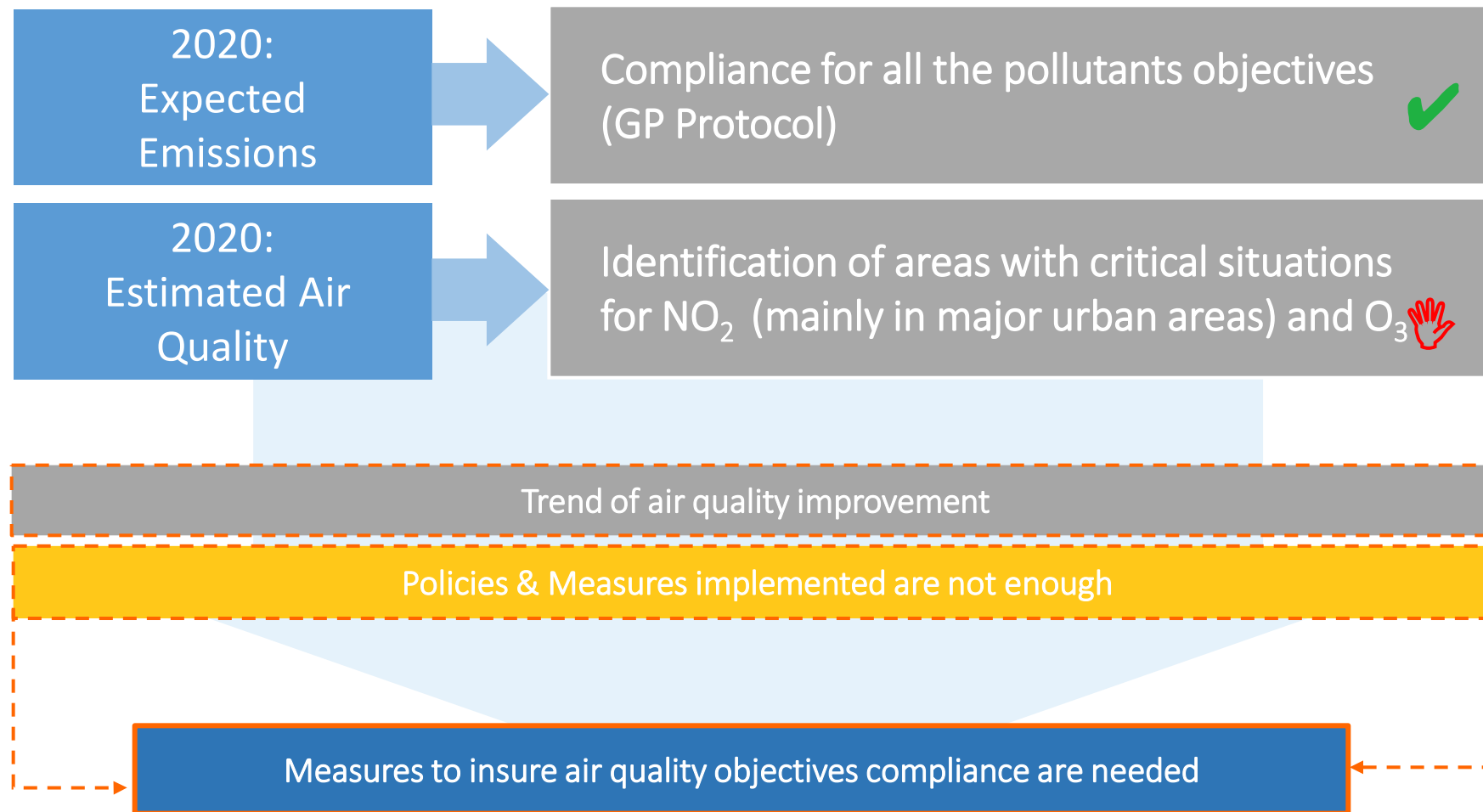
Compliance unlikely/uncertain in the  
northwest and parts of the Centre and  
likely elsewhere



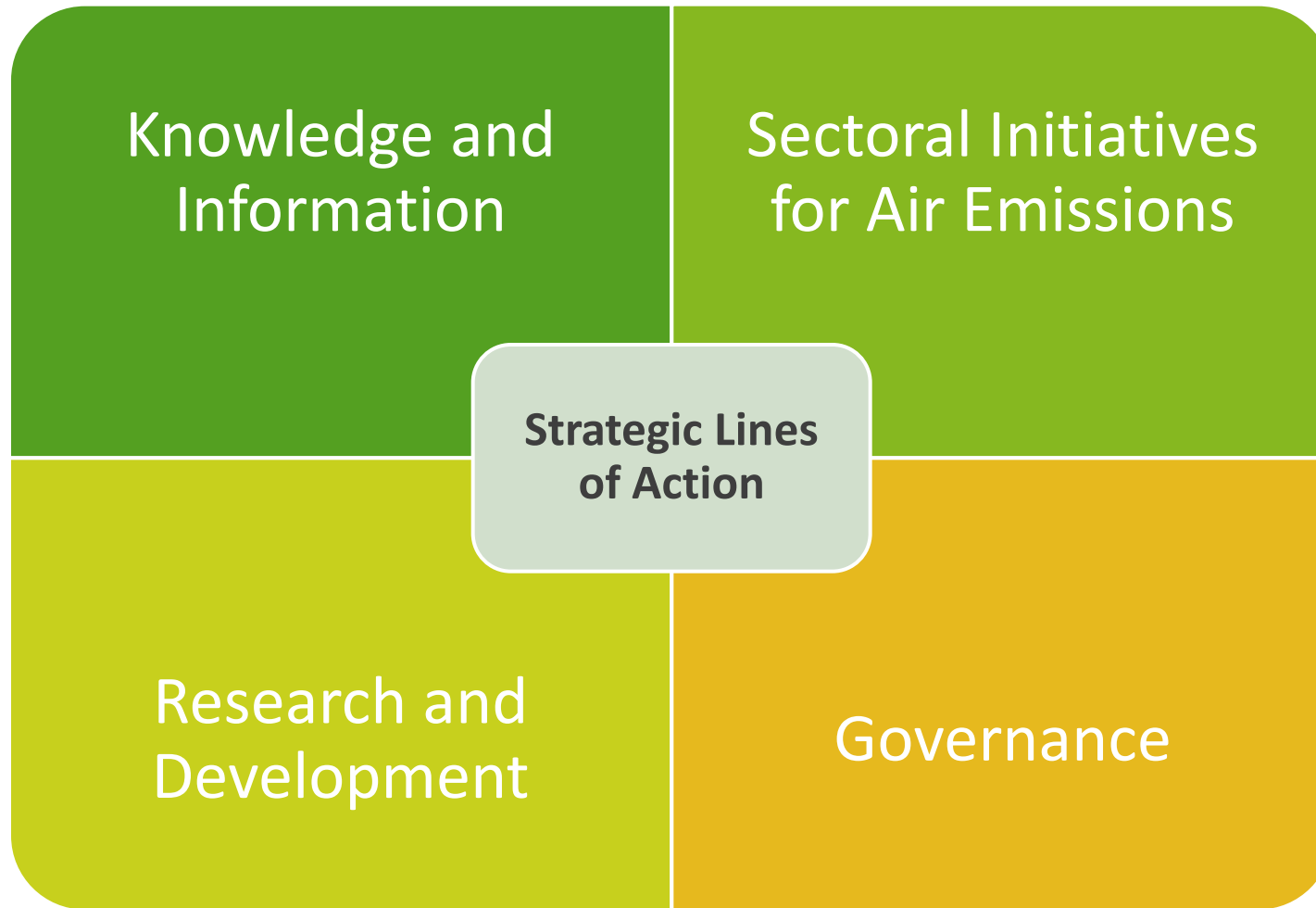
## SO<sub>2</sub> & PM<sub>2.5</sub>

Compliance likely  
nationwide

# ENAR 2020: PROJECTIONS – OBJECTIVES ATTAINED?



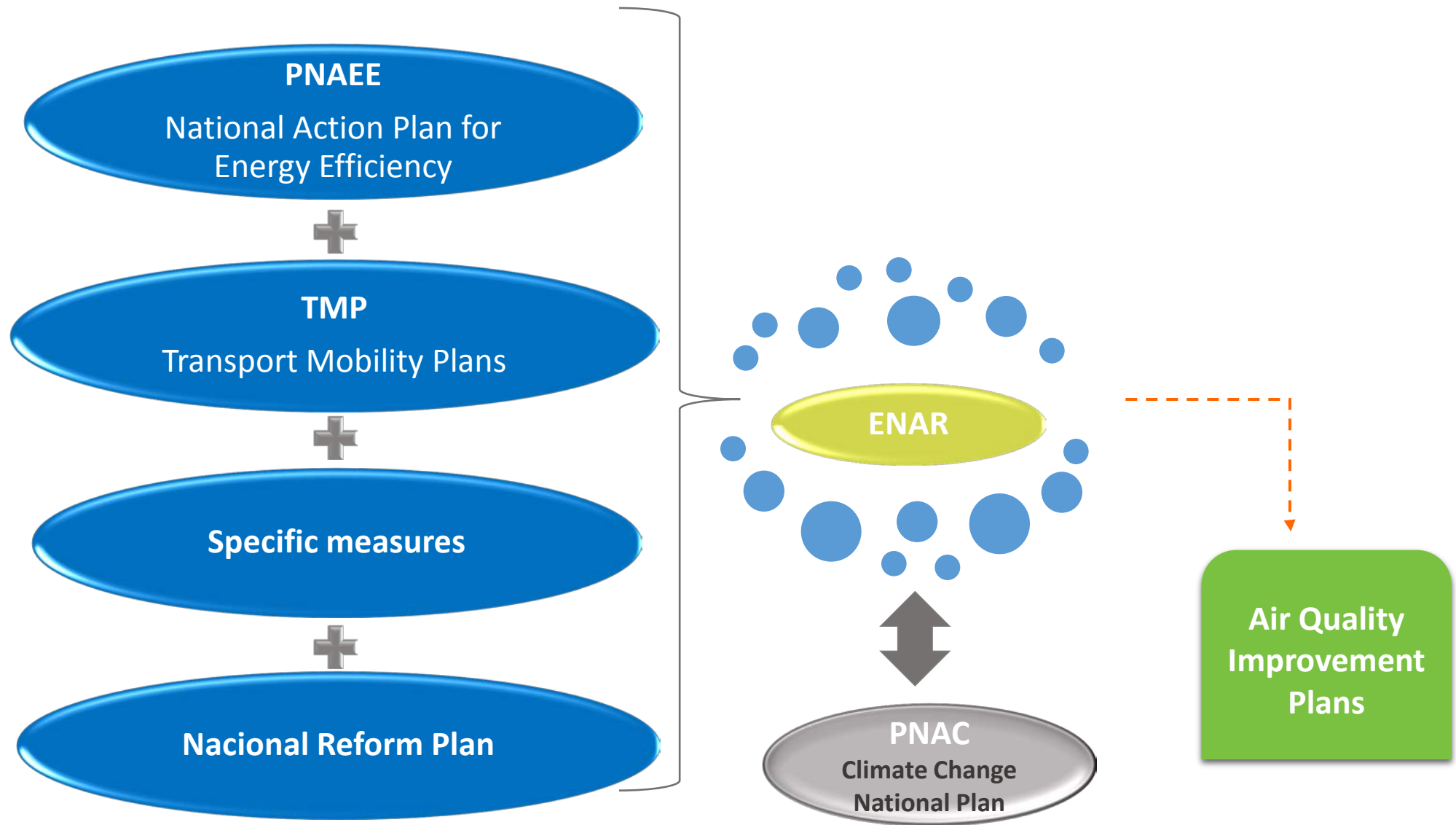
# ENAR 2020: STRATEGIC LINES OF ACTION



# ENAR 2020: STRATEGIC LINES OF ACTION - MEASURES

| Strategic vectors                                    |                  |  | Measures   |             |
|--|------------------|--|--|-------------|
| <b>Knowledge and Information</b>                     | <b>C&amp;I1.</b> | Improvement of information quality on atmospheric emissions and ambient air quality  |  |             |
|  | <b>C&amp;I2.</b> | Optimization of air quality monitoring network   |  |             |
| <b>Sectoral Initiative for atmospheric Emissions</b> | <b>ISEA1.</b>    | Increase energy efficiency as a way to reduce emissions of air pollutants  | Industry   |             |
|  | <b>ISEA2.</b>    | Promotion of improved efficiency utilization of natural resources and raw materials  |  |             |
|  | <b>ISEA3.</b>    | Improvement of emissions control of atmospheric pollutants from industrial plants  |  |             |
|  | <b>ISEA4.</b>    | Sustainable Management of Urban Mobility and Passenger Transport   | Transports   |             |
|  | <b>ISEA5.</b>    | Active management of behaviors in professional fleets (transport of passengers or goods)   |  |             |
|  | <b>ISEA6.</b>    | Promotion of high environmental performance vehicle  |  |             |
|  | <b>ISEA7.</b>    | Sustainable management of freight transport  |  |             |
|  | <b>ISEA8.</b>    | Increase in the technical operational capacity of the Inspection & Maintenance (I & M) of motor vehicles   |  |             |
|  |                  | <b>ISEA9.</b>  | Reinforcement of measures to minimize ammonia emissions in the agricultural sector | Agriculture |
|  |                  | <b>ISEA10.</b>   | Promotion of the adoption of efficient air conditioning solutions                  | Resid./Com. |
| <b>Governance</b>                                    | <b>G1.</b>       | Ensure effective governance and ensure the integration of air quality objectives in the various sectoral areas   |  |             |
|  | <b>G2.</b>       | Optimization of operational processes in Public Administration in order to increase the knowledge and effectiveness of information systems, evaluation and monitoring. |  |             |
| <b>Research &amp; Development</b>                    | <b>I&amp;D1.</b> | Evaluation of emissions from sectors with insufficient, disjointed and / or inconclusive information   |  |             |
|  | <b>I&amp;D2.</b> | Development of tools to enable integrated assessment in the field of air quality   |  |             |
|  | <b>I&amp;D3.</b> | Quantification of the effects of air pollution on human health in Portugal   |  |             |
|  | <b>I&amp;D4.</b> | Assessment of the effects of air pollution on ecosystems in Portugal   |  |             |

# ENAR 2020: ARTICULATION OF POLICIES AND PLANNING



# ENAR 2020: FOLLOW-UP AND MONITORING

- Interministerial Commission for Air and Climate Change
- System of Policies and Measures (SPeM) - relevant entities mentioned in RCM n° 45/2016
- Technical Air Quality Group (GTAR) – National and Regional authorities, Universities, National Reference Laboratory
- Reporting instruments
  - ✓ National System for the Inventory of Emissions by Sources and Removals by Atmospheric Pollutant Sinks (SNIERPA) (Emissions)
  - ✓ Annual Quality Assessment Air (EU Decision - Exchange of information)
  - ✓ Evaluation of policies - CLRTAP

- **Air Strategy: Ministerial Council Resolution nº 46/2016, 26th August**

[dre.pt/application/file/75212779](https://dre.pt/application/file/75212779)

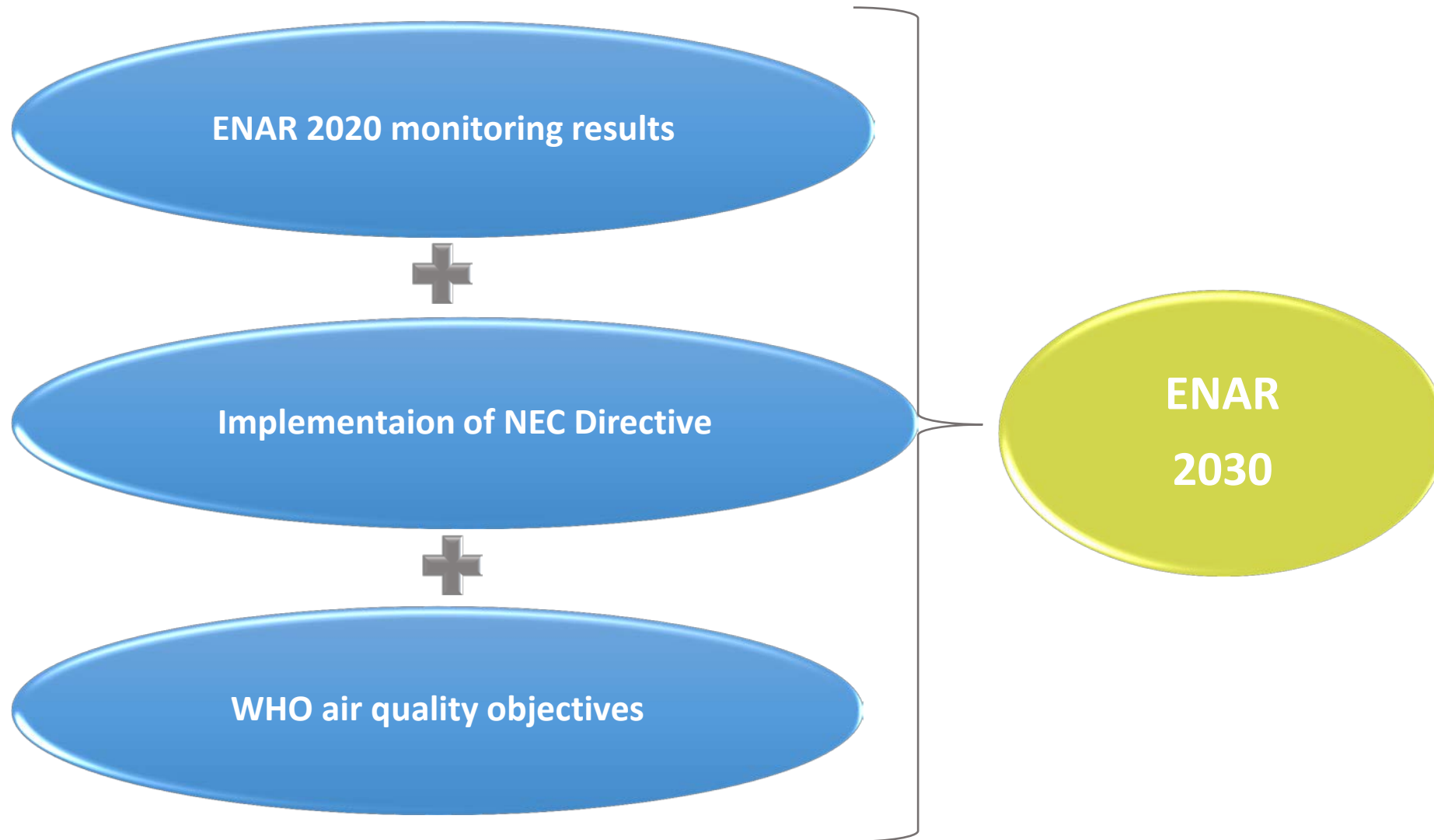
- **SP&M: Ministerial Council Resolution nº 45/2016, 26th August**

[dre.pt/application/file/75212778](https://dre.pt/application/file/75212778)

- **All Documents: Portuguese Environment Agency**

[www.apambiente.pt/index.php?ref=16&subref=82&sub2ref=1174](http://www.apambiente.pt/index.php?ref=16&subref=82&sub2ref=1174)

# ENAR 2020: REVISION IN 2019







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**THANK YOU**



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