

GAS QUALITY HARMONIZATION: THE EUROPEAN SITUATION

Part 2: Possible model for harmonisation in the EU

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Patron



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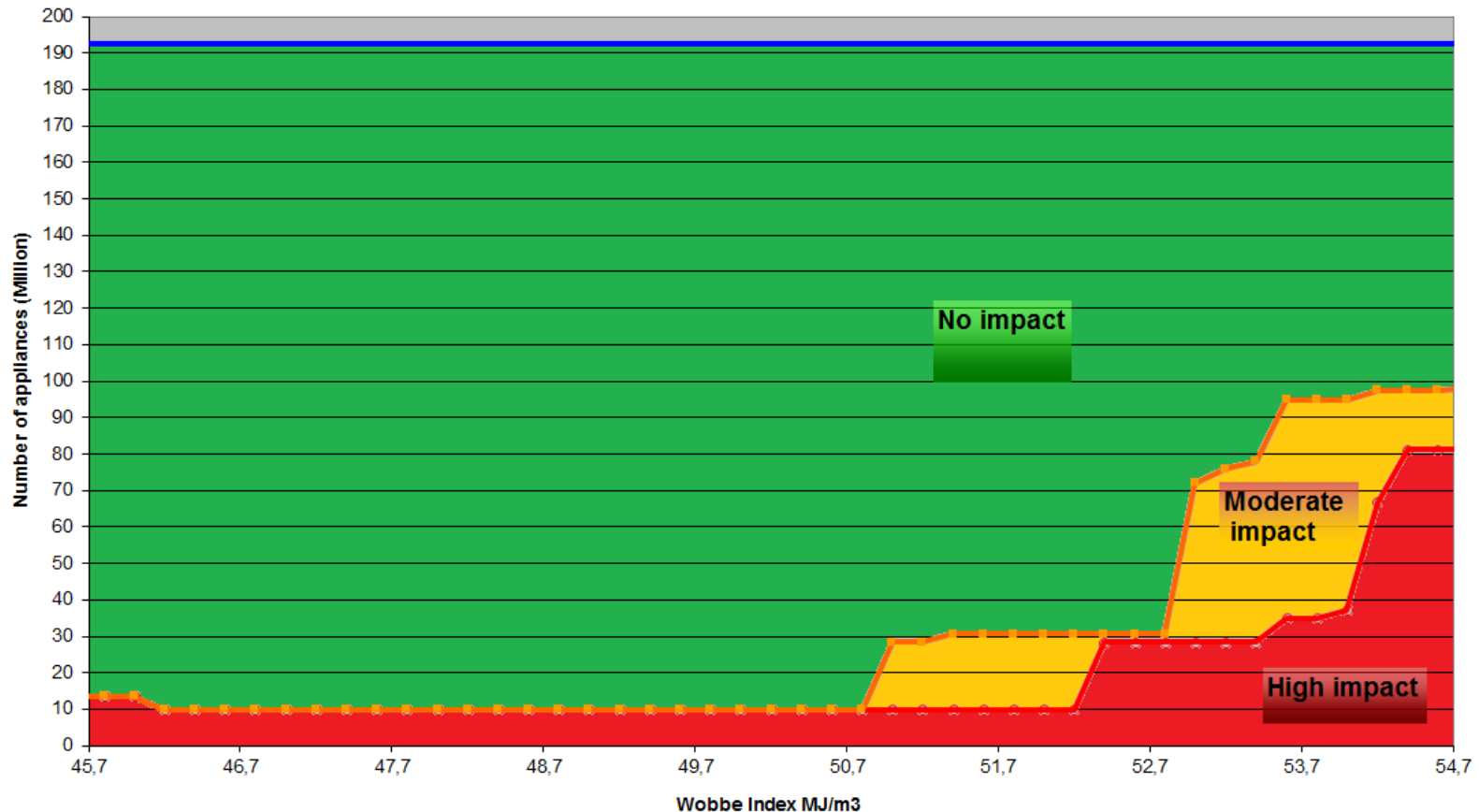
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Situation arising from the GASQUAL project.

- No easy solution:
 - A unique and large Wobbe index range is not implementable in EU tomorrow
- But a list of potential barriers have been identified

CASE1 With pressure variations and field adjustments

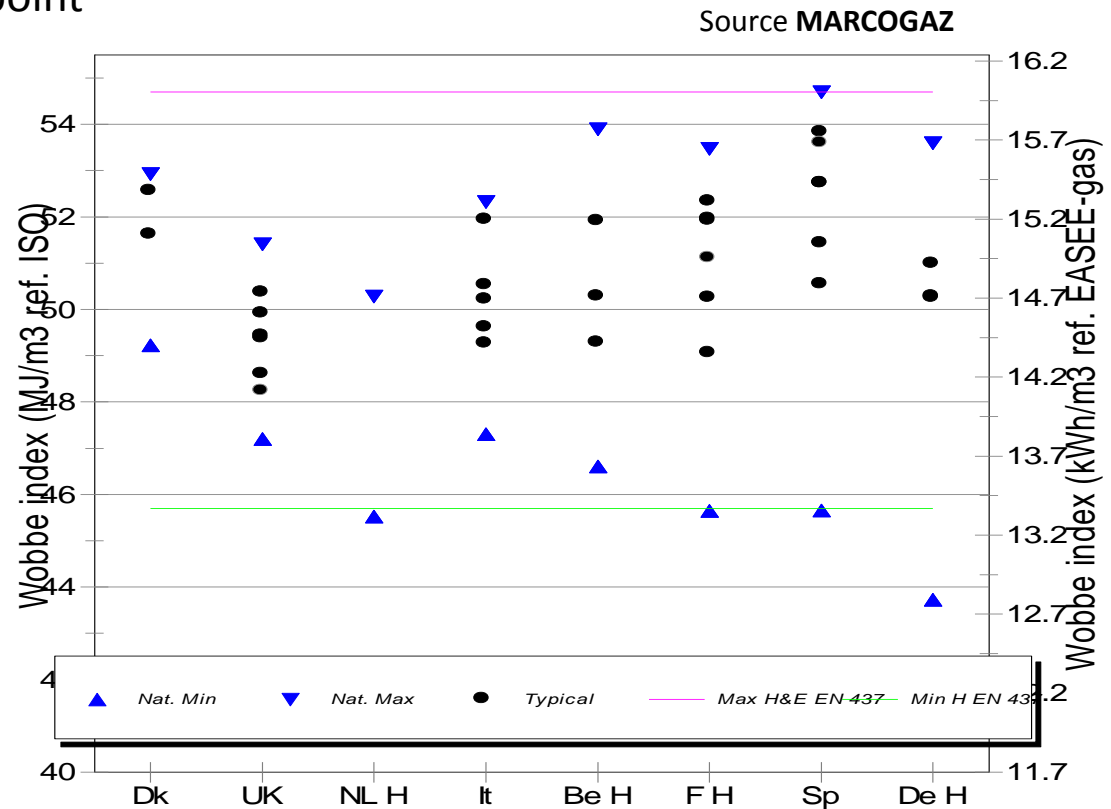


Defining a number of potential ranges

Step	Proposed range MJ/m ³	Limiting factors regarding domestic appliances.
0	None acceptable	Adjustable appliances to be considered in order to propose any variation of gas quality: Segment 1 <i>Condensing boilers</i> , Segment 3 <i>Forced draught burners</i> and segment 8 <i>Boilers EN 483 Room sealed, full premix fanned</i> are concerned. This could lead to readjusting appliances to their factory setting (adjustment on reference gas G 20). Non domestic appliances situation has to be clarified.
1	46 to 51	Moderate impact observed on <i>Instantaneous Water Heaters</i> (Segment 9) and <i>Open flue radiant gas fire</i> (Segment 15) if combined with pressure variations for Wobbe Index above 51 MJ/m³ .
2	46 to 52	High impact observed on <i>Instantaneous Water Heaters</i> (Segment 9) if combined with pressure variations above 52 MJ/m³ .
3	46 to 53	Moderate impact observed on <i>Low NOx boilers</i> (segment 4), <i>grills</i> (Segment 5), <i>Instantaneous Water heaters</i> (Segment 9 "open flue" and 20 "room sealed") with Wobbe variation alone above 53 MJ/m³ . Moderate impact observed on <i>Partial premix boilers</i> (segment 7), if combined with voltage variations above 53 MJ/m³ . Moderate impact observed on <i>Storage water heaters</i> (segment 19) if combined with pressure variations for Wobbe Index above 53 MJ/m³ .
4	46 to 53.5	High impact observed on <i>Low NOx boilers</i> (segment 4) with Wobbe variation alone above 53.5 MJ/m³ . High impact observed on <i>Open flue radiant gas fire</i> (Segment 15) if combined with pressure variations above 53.5 MJ/m³ .
5	46 to 54	High impact observed on <i>Partial premix boilers</i> (segment 7), with Wobbe variations alone above 54 MJ/m³ . High impact for <i>Storage water heaters</i> (segment 19) if combined with pressure variations above 54 MJ/m³ .
6	45.7 to 54.7	Appliances compliant with GAD are certified against the H-range going from 45.7 to 54.7 MJ/m ³ . No knowledge available outside this range. For sixteen segments representing ≈100 million appliances no issues have been observed on the whole range. <i>Condensing boilers</i> (segment 1), <i>force draught burners</i> (segment 3) and <i>Boilers EN 483 Room sealed, full premix fanned</i> (Segment 8) are not presenting issues on this range when adjusted on G 20 (factory settings).

To be compared with national situations

- Different countries, different experiences
 - Range of distributed gases
 - Experience with gas quality variations
 - Potential for supply pressure variations
- Means different starting point

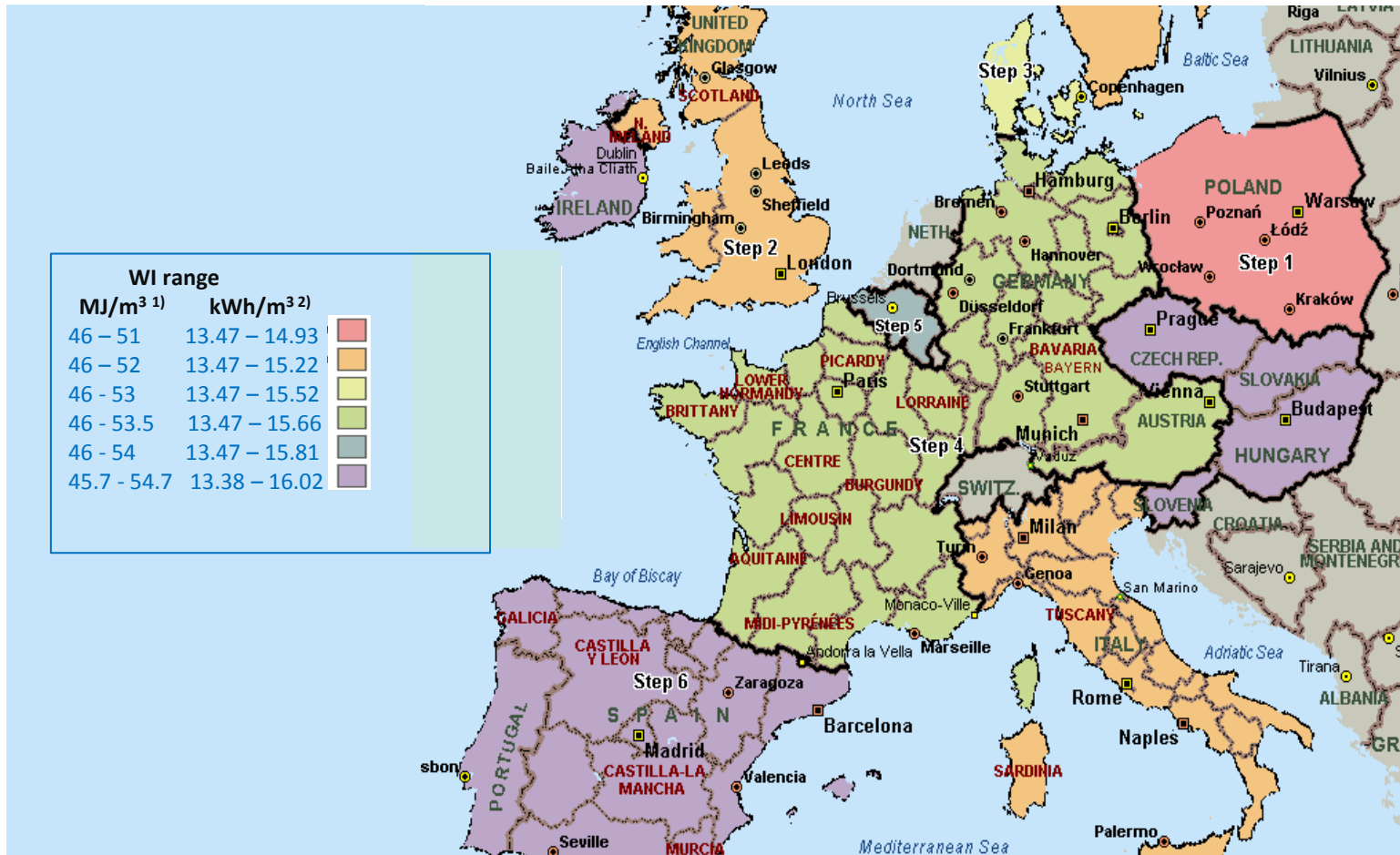


How to move forward?

- Define a common target
 - Gives a clear analysis criterium
- Propose a common methodology
 - Allows for same understanding of the issues
 - Facilitate the identification of all issues/stakeholders.
- Share information
 - Avoid work (if one has a solution)
 - Avoid **double** work (if no solution available → common effort)
- But difficult to organise with 27 (or 16) countries with very different situations

Thus lets start with regional harmonisation

- Current view of the European Wobbe index ranges

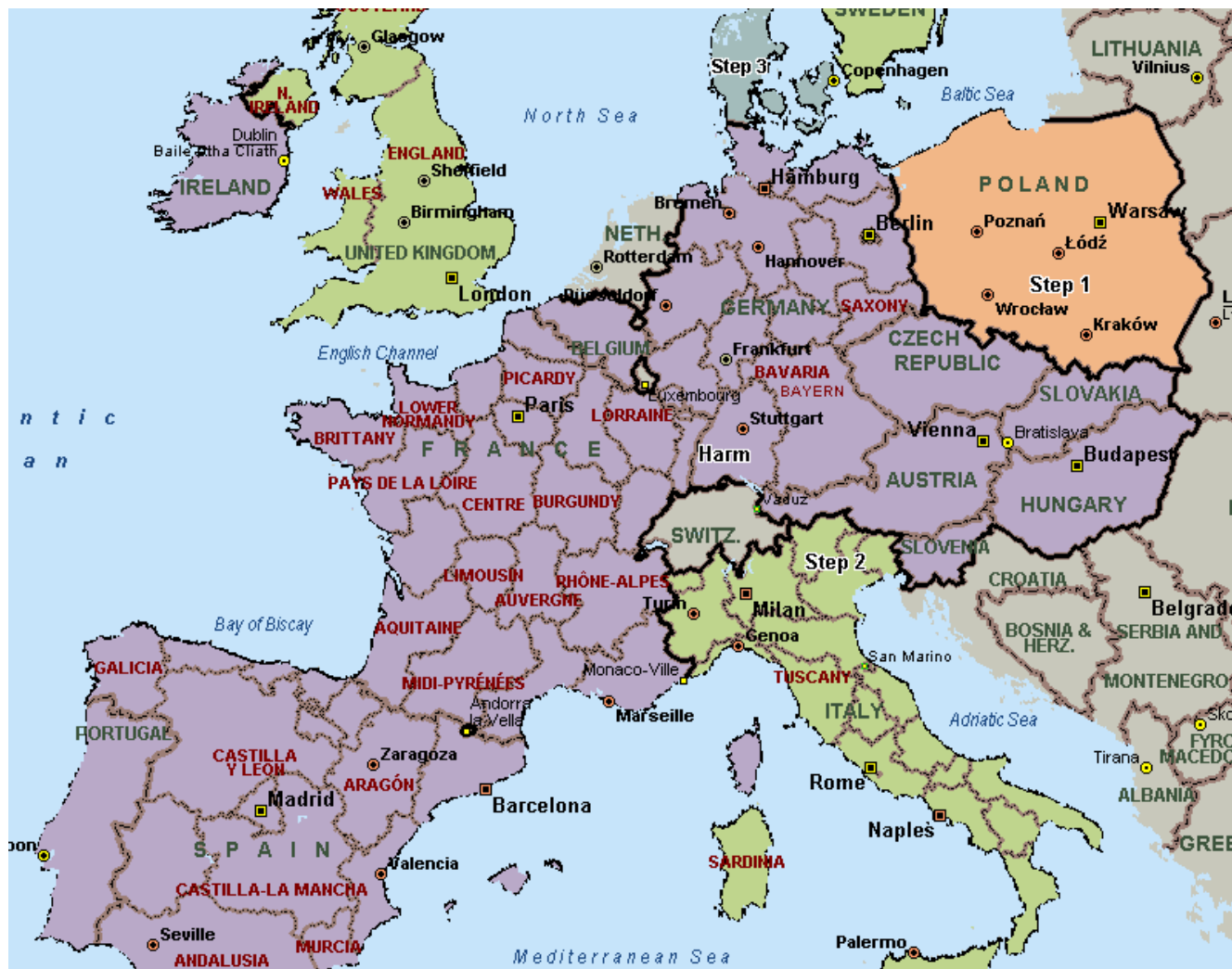


1)W.I expressed in MJ/m³ (15°C, 15°C and 1013,25 hPa).
2)W.I expressed in kWh/m³ (25°C, 0°C and 1013,25 hPa)

Map based on Doc CEN BT WG 197 027 Data OIEU (2004.12.01) National declaration according to GAD. Validated by CEN BT WG 197 members; source MARCOGAZ

That could lead to a fairly big region

- Common target : 46-54 MJ/m³ (step 5)



Thus a new a pilot study is starting

- Conducted in a small group of countries (BE, DE, DK, FR, ES)
 - At the core of EU gas flows
 - Having experience with one or more aspects of the issues (gas close to limit, large variations, etc.)
 - Willing to move forward
- Implementation of common range studied at national level
 - Dedicated groups gathering all point of views (authorities, gas industry, end users, ...)
 - All issues / sector to be studied (pre-GAD appliances, industrial users, etc.)
 - Mitigating costs and time for implementation measured
- Coordinated at EU level
 - Small structure mainly for sharing information and spreading results and methodology
 - Responsible for the transparency of the exercise
- Potential outcome
 - Implementation plan for participating countries
 - Knowledge and methods for observing countries and EU structures (EC, CEN, ...)
 - Validation or revision of the common target

A process welcomed by the European Commission and the Madrid Forum

**CEN
Standardization**

Pilot Study on
regional
implementation

Improved Gas
Quality (change)
information
TSO -> users



Thank you for your attention