

SmarterEPC
Country Factsheet
ITALY

Italy is undergoing a significant transformation in its building sector, driven by EPBD IV and national legislation aligned with the Fit for 55 package.

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Two key instruments frame this transition:

1. The Energy Performance Certificate (EPC/APE, Attestato di Prestazione Energetica), a legally binding, mandatory certificate with a 10-year validity, covering most building transactions (sale, rental, new construction, major renovation) and interventions.

2. The Smart Readiness Indicator (SRI): Italy officially launched its national SRI test phase in March 2025, becoming one of 16 EU countries currently piloting the scheme. The 12-month pilot is led by the Ministry of Environment and Energy Security (MASE) and ENEA, with a focus on adapting the SRI framework to the national context and exploring integration with the APE.

Did you know In Italy, the EPBD IV transposition is significantly delayed: two infringement procedures have been opened by the European Commission (November 2025 and March 2026), and **the full transposition deadline of 29 May 2026 is now missed.**

A comprehensive analysis of the current implementation and coverage of EPC and the SRI across EU Member States is available in this SmarterEPC report D2.2 EPC and SRI current coverage and uptake policies.

Smarter EPC

Co-funded by the European Union

I. EPC in Italy



Italy has a mature, legally binding EPC/APE system. As of 2024, approximately 1.2 million APEs were issued and validated in the national SIAPE database, an 8% increase from 2023. Despite steady growth, coverage remains limited relative to the total building stock, of which 76% was built before 1991. Classes F and G represent nearly 44% of certified buildings, with only 20% reaching classes A4 to B.

I. 1. Governance & Legislative Framework

Competent Authorities

The **MASE** is the lead authority for energy policy and EPBD transposition. **ENEA** provides technical-scientific support, manages the national SIAPE database and supports MASE on building energy policy analysis. Italian Thermotechnical Committee (CTI) contributes to the national calculation methodology (UNI/TS 11300 standards). **Regional and Provincial Authorities** (21 in total) have primary jurisdiction over training, accreditation of assessors, and management of regional energy cadastres. **ARERA** (Regulatory Authority for Energy, Networks and Environment) oversees consumer protection.

Key Legislation

- **The Legislative Decree 192/2005** (transposition of EPBD 2002/91/CE) is the cornerstone of Italian building energy policy
- **The Legislative Decree 63/2013** reformed and standardized the APE format and requirements nationally
- **The Ministerial Decrees of 26 June 2015** define the calculation methodology (DM Requisiti Minimi), the technical reports (DM Relazioni Tecniche), and provide national EPC guidelines (DM Linee Guida Nazionali)
- **The Legislative Decree 199/2021** transposes the Renewable Energy Directive relevant for APE calculations
- **The Ministerial Decree of 28 October 2025** updates the 2015 methodology and entered into force for permits filed after 3 June 2026.

Recent Legislation Updates

Italy's EPBD IV transposition has failed to meet its EU deadline and the country is subject to two open EU infringement procedures as of June 2026:

- **INFR(2025)2186 (Nov 2025)**: The Commission formally notified Italy for incomplete transposition of EPBD IV Article 17(15), as public-sector **Conto Termico 2.0** continued supporting stand-alone fossil fuel boilers despite the 1 January 2025 ban on such incentives.
- **INFR(2026)2024 (Mar 2026)**: Italy and 18 other Member States received a formal notice for failing to submit a draft National Building Renovation Plan (NBRP) by the deadline of 31 December 2025 required under EPBD IV.

Latest update: The Legge di Delegazione Europea 2025, definitively approved by the Senate on 11 March 2026, does not include EPBD IV, leaving no formal transposition mandate in place. The transposition deadline of 29 May 2026 was subsequently missed. One preparatory step was the July 2024 publication by ENEA of La consistenza del parco immobiliare nazionale, assessing Italy's building stock as a basis for the future NBRP. A further preparatory step is the DM Requisiti Minimi 2025 (see Key legislation above), which updates the APE calculation framework in anticipation of full EPBD IV transposition.

Uptake Policy

The **APE** is mandatory for property sales, rentals, new constructions, major renovations, and public buildings over 500 m² open to the public. Its energy class must be disclosed in property listings and submitted to access major energy-efficiency incentives, which often require demonstrated improvements in building performance.

More information in the report D4.4 De-risking financing of energy efficiency and smartness upgrade measures.

Stakeholders Feedback

According to the 2025 ENEA Annual Report on Building Energy Certification (RACEE24), APE issuance continues to be driven predominantly by real estate market transactions (sale: 54.6%; rental: 21.8%), while energy renovation-driven certifications are declining (-1.5% vs 2023). **FIAIP (Italian Real Estate Agents Federation) data** show growing market awareness: energy efficiency is now ranked as important as proximity to services in buyer priorities. Key criticisms include the fragmentation of regional regulatory frameworks, quality inconsistencies across regions (about half of regions have not adopted their own accreditation regulations), and limited use of APE data for strategic policy decisions. ENEA's SIAPE now covers 20 out of 21 regions/provinces.

I. 2. EPC Methodology

Method used: Asset rating is based on a calculated (conventional) quasi-steady-state method. The methodology is defined by the national technical standards UNI/TS 11300 (Parts 1 to 6), aligned with European CEN standards (EN ISO 52000 series).
Rating types: Asset Rating (Calculated). The previous method allowing "billing-based" ratings (for old buildings) was abolished to ensure consistency.



1 ENEA – Annual Energy Efficiency Report (RAEE 2025)

Scope: The APE covers all the **main energy uses** required for the standard operation of the building: space heating, space cooling, domestic hot water (DHW), ventilation, and, for non-residential buildings, lighting and transport systems.
Class Determination: A **10-class scale** from A4 (highest efficiency) to G (lowest efficiency) is used in Italy. The class is determined by comparison of the Global Energy Performance Index (EPgl) (calculated in kWh/m²/year) of a building against class boundaries defined as a function of climate zone and the building's S/V ratio (surface-to-volume ratio). The GHG emissions are also reported but do not determine the class (unlike the French double-threshold system).
Local specificity: Italy's **6 climate zones** (A to F, based on degree-days) significantly affect class boundaries, making direct cross-regional comparison less straightforward. Regional authority databases (Catasti Energetici Regionali) feed into the national SIAPE, but formatting and quality control practices still vary. ENEA is working with Campania and Sardinia to align their regional cadastres with the national SIAPE standard.

I. 3. EPC Assessor Training and Accreditation

The Role

The **'Certificatore Energetico'** is the qualified professional authorised to issue APE certificates. They must be independent from the property owner and from any contractor involved in the building's energy systems. They hold legal responsibility for the accuracy of the certificate.

Key Legislation

Training, supervision and accreditation of professionals are managed by Regions through specific regional laws. Where a Region has not adopted its own regulations, the national framework (D.Lgs. 192/2005 and DM 26/06/2015) applies. Approximately half of Italian regions have adopted regional regulations; the other half apply national rules by default.

Conditions/Prerequisites

The 'Certificatore Energetico' must hold a **technical degree** (or equivalent professional qualification) in architecture, engineering, surveying, or related building/energy fields (e.g., mechanical or electrical engineering) or in the field of forestry and environmental sciences and technologies. They must be registered in the professional register of their region or autonomous province and must demonstrate independence and impartiality with respect to the parties involved in the transaction.

Training Programme

No single national standardised training programme exists. Training requirements are set at regional level. In regions without specific regulation, the national default (D.Lgs. 192/2005) applies a competency-based framework. Typical training includes:

building physics, heat transfer, and insulation; HVAC systems (heating, cooling, DHW, ventilation), national calculation methodology (UNI/TS 11300), use of validated APE software and a legal framework and professional liability. Note that learning on-site inspection is mandatory in all training programmes.

Follow Up of the Pofessionals

Regions are required to perform **quality controls on a minimum of 2% of EPCs annually.** ENEA conducts quality checks via the SIAPE platform, including automated anomaly detection in XML data files submitted by regional cadastres. A directory of certified assessors is available through the PnPE2 national platform (though it remains regionally fragmented).

Cost

No regulated fee exists. APE costs typically range from €150–€250 for apartments, and higher for larger or more complex properties. Costs vary significantly by region, property type, and assessor.

I. 4. EPC Accredited Calculation Tools

List of Tools Used to Calculate EPC Certificates

Multiple commercial software tools validated against the UNI/TS 11300 national standards are used in the Italian market. Widely used tools include: **STIMA10** (Idronicaline); **TerMus** (ACCA software), and **EDILCLIMA EC700 and Logical Soft's suite.** In Lombardy only: **CENED** 2.0 (free regional tool) is mandatory. Tools typically export data in CTI-standard XML format compatible with regional cadastre systems.

> More information in the report D2.1 Assessment of tools for the calculation of EPC and SRI**, and on the** SmarterEPC Atlas.

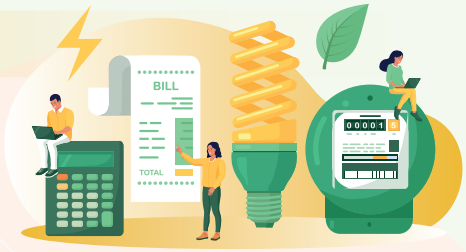
Compliance

All accredited tools must be validated by CTI to ensure alignment with the national calculation methodology (DM 26/06/2015, updated by DM 28/10/2025 for permits from 3 June 2026, and UNI/TS 11300) and guarantee a maximum deviation of ±5% from the reference calculation. Tools must also export data in the standardised XML format required by SIAPE and regional databases.

Data Input

Manual data entry is standard and site inspection is mandatory. Data includes building geometry, orientation and exposure to solar radiation, thermophysical properties of envelope elements, thermal bridges, HVAC system characteristics, and renewable energy installations. BIM-based or automated input methods are not yet standard practice, though innovative tools (see Section I.5) are exploring this.

Cost Model



Most tools are commercial, with prices ranging from approximately **€300 to €1,500+ for annual licenses,** depending on modules and number of users. CENED 2.0 (Lombardy) is free.

Building Logbook Integration

No systematic integration with Digital Building Logbooks (DBL) currently exists at a national level. Data entry remains primarily manual. ENEA's PnPE2 platform is progressively developing functionalities for richer data integration.

Validity Period

The **APE is valid for 10 years** from the date of issue, provided no major renovation affecting the building's energy performance is carried out. The APE loses validity if mandatory boiler inspection requirements are not met.

I. 5. EPC Innovative Calculation Tools

Origin of the EPC Innovative Calculation Tools

Italy actively participates in the EU's Next Gen EPC cluster (13+ Horizon 2020 / Horizon Europe projects). **ENEA is a key partner in several projects** including SmarterEPC, OBSERVE, and LEAPto11. Italian academic institutions (Politecnico di Milano, University of Brescia, University of Cassino) contribute to tool development and methodology research.

Key Tools & Innovations:

EPC RECAST (coordinated by CSTB with Italian partners): integrates BIM-based data collection for APE, using the BIMEO AR app and the KROQI platform for digital building logbooks, adapted for the Italian regulatory context.

- **The SmarterEPC Hub:** a smart data collection IT interface being developed to map variables for joint APE and SRI assessments, with the SmarterEPC joint certificate template.
- **ENEA's SIAPE API:** automated anomaly detection in APE XML data files, supporting quality control at national level. PnPE2 National Platform: centralises national APE data, energy assessor directory (PnPE2), and tax incentive information, accessible to citizens and professionals. IPE_DB Tool: ENEA's online database of sectoral Energy Performance Indices (EPIs), supporting benchmarking and quality assurance for energy audits (industrial

Main Sources:
ENEA – SIAPE (siape.enea.it); ENEA – PnPE2; D.Lgs. 192/2005; DM 26/06/2015; CTI – UNI/TS 11300 series; DM 28/10/2025 (Decreto Requisiti Minimi 2025, GU n. 283 del 05/12/2025).

sector). Digital simulation tools and AI-based approaches are being explored by Cassa Depositi e Prestiti (CDP) for large public building portfolio analysis.

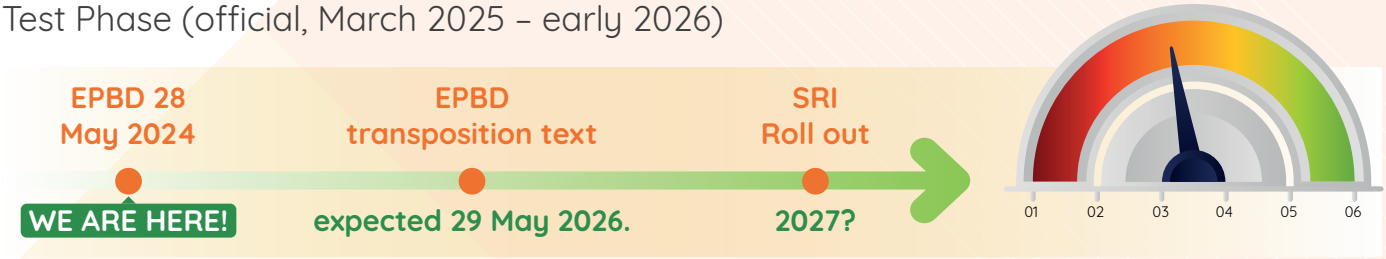
II. SRI (Smart Readiness Indicator)

Status: The SRI remains a **voluntary scheme in Italy**. Italy officially launched its national SRI test phase in March 2025, led by MASE (Ministry of Environment and Energy Security) and supported by ENEA. The 12-month pilot covers at least 30 buildings across different use cases and climatic zones.

Link to EPC: While the APE includes some 'smart' data inputs (e.g., presence of thermostats, BACS indicators), it does not currently include a SRI score. Italy's SRI testing phase aimed to explore how SRI assessments can be integrated into the APE and whether there is a correlation between SRI scores and energy classes. The SRI2MARKET (2022–2025) and SmarterEPC (2023–2026) projects support this work.

Implementation Phase:

Test Phase (official, March 2025 – early 2026)



No national SRI certification scheme or market uptake policy is yet in place. **The government's focus remains on BACS (Building Automation and Control Systems) compliance for tertiary buildings.** The test phase results inform future policy decisions on SRI rollout. The national SRI test phase is well advanced and has entered the results analysis and reporting stage. In parallel, ENEA is developing an SRI calculation tool to make it available.

II. 1. Test Phases

Entering its Final Stage of Results Analysis - Q2 2026

Organisations leading	Timeline	No. of SRI Experts Trained
MASE, ENEA and the University of Cassino and Lazio Meridionale	March 2025 – early 2026 (12 months)	30+ buildings Multiple use cases and climatic zones Number of trained SRI assessors: Not publicly documented

Key Focus Areas of the Italian SRI Test Phase:

- Assessment of the state of the art of smart building technologies available on the Italian market
- Adaptation of the SRI service catalogue to the national building stock and regulatory context
- Exploration of potential integration with the APE (EPC) system
- Analysis of the correlation between SRI scores and APE energy classes

- Coverage of different building use types (residential and non-residential) and Italy's 6 climate zones.

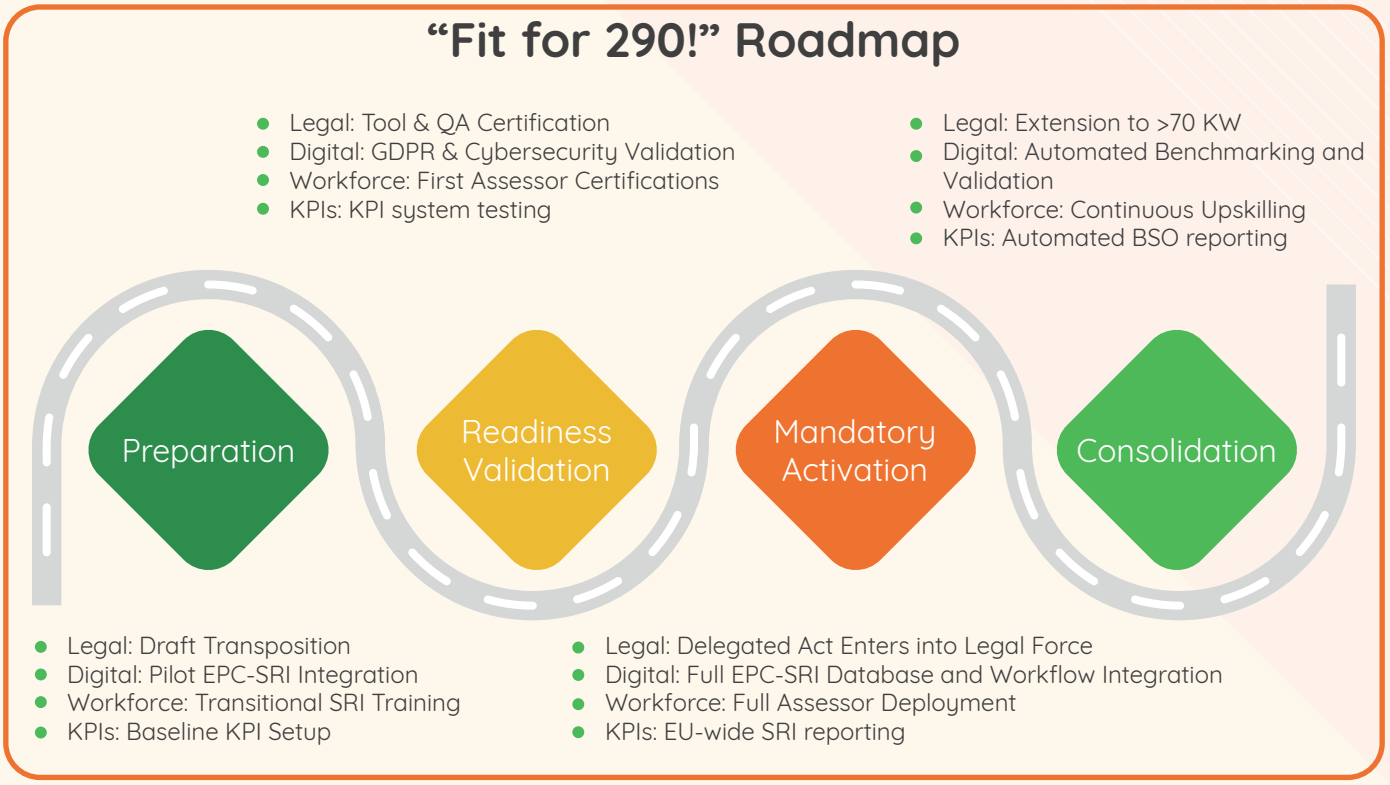
Preliminary research results from ENEA (published prior to the official test phase) indicate that the standard SRI methodology tends to produce low scores for Italian tertiary buildings despite high levels of technological equipment, highlighting the importance of national calibration. A tailored methodology adapted to Italian conditions was developed and compared against the generic European framework.

II. 2. Future of the SRI

Future of the SRI: Under the 2024 EPBD recast (Article 15), the SRI remains an optional scheme at EU level until the Commission submits a report to Parliament and Council by 30 June 2026 on the outcomes of national test phases. By 30 June 2027, the Commission is expected to adopt a delegated act making the SRI mandatory for non-residential buildings with HVAC systems >290 kW. Italy's 12-month test phase (2025–2026) will directly inform this European Commission report and Italy's subsequent SRI policy decisions.

SmarterEPC proposes a strategic guidance for Member States and decision-makers to draft harmonised policy, coordinate on the SRI iimplementation for large non-residential buildings with systems above 290 kW by 2027, in line with EPBD IV.

SmarterEPC Roadmap for SRI Rollout



III. Integration of EPC and SRI

Current Situation: In Italy, as across the EU, the APE (EPC) remains the regulatory cornerstone of building energy performance certification. The SRI is an emerging,

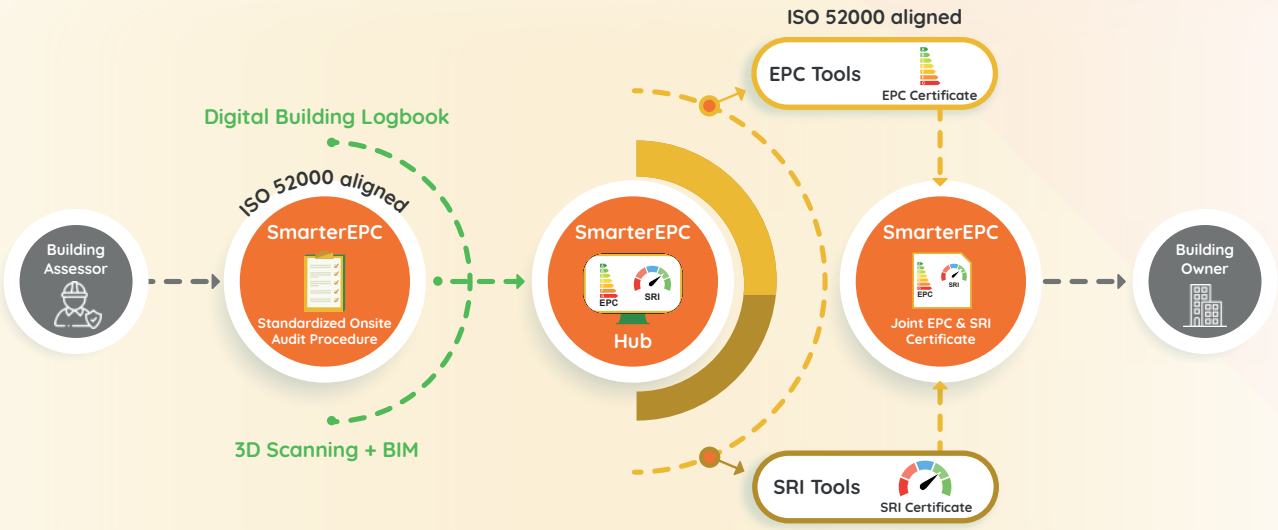
complementary tool. The two instruments are not yet formally integrated: the APE does not generate an SRI score, although it captures some relevant smart technology data (e.g., thermostat type, BACS presence). The Italian SRI test phase explicitly targets integration analysis as a core objective, making Italy well-positioned for future alignment.

Evaluation of the integration of EPC and SRI: The EU project SmarterEPC and its sister projects **(iEPB,[2] tunES)[3]** are central to current thinking about SRI & EPC integration.

Expected benefits of the integration of EPC and SRI: Integrating the EPC and SRI transforms buildings from static structures into active, grid-connected assets by combining energy efficiency ratings with digital intelligence. For owners and professionals, this integration streamlines the auditing process into a single, cost-effective "one-stop-shop" visit, providing a holistic roadmap that boosts property value and ensures compliance with future EU decarbonization and grid-flexibility standards.

SmarterEPC is a flagship EU initiative tackling exactly the questions you're interested in "How can the SRI be integrated with EPCs in a coherent, implementable way across Europe?". SmarterEPC envisions the **first joint EPC and SRI certification workflow** creating three main innovations, aligned with the CEN/ISO set of EPBD standards and with the 2024 revision of the EPBD:

- **Innovation 1:** A standardised onsite audit procedure, which frames data collection based on existing standards.
- **Innovation 2:** The SmarterEPC Hub - Smart data collection IT interface, designed to read and map variables, preparing the data to be used by EPC and SRI tools, for the calculation of energy performance and smart readiness assessments, respectively.
- **Innovation 3:** A joint EPC and SRI Certificate template, with EPBD-compliant contents, integrating the outcomes of both assessments.



The SmarterEPC project approach

2 https://iepb-project.eu/
3 https://empirica.com/tunes/

Materializing the conceptual complementarity of EPCs and SRI, SmarterEPC develops **tools, workflows, data hubs and certification templates** that could pave the way for real interoperability and future policy alignment. Project outputs are made available on the project webpage.

SmarterEPC Project Outputs & Capacity-Building Centre

The SmarterEPC project disseminates its main results and capacity-building resources in a structured and accessible manner. All relevant data and materials are made available to interested stakeholders.

One project. Many Outputs.

SmarterEPC provides solutions to address challenges faced by users, assessors, and policymakers in the fields of EPC and SRI.

SmarterEPC developed several tools you can freely use according to your needs.

Policies Analysis

EPC and SRI current coverage and update policies

A pivotal report that offers a detailed, EU-wide analysis of the current status, challenges, and future pathways for EPCs and SRI.

Adapting Smarter EPC tool to the requirements of the EPBD

This report outlines the relevant provisions of EPBD IV and the corresponding strategic and technical adaptations recommended.

Digital Tools

SmarterEPC HUB

Get an advanced EPC or an SRI certificate and even a joint EPC-SRI assessment in a few clicks. Access our easy-to-use, versatile open hub for assessors and built environment specialists.

Online EPC Atlas

Discover +70 existing EPC and SRI tools currently available in 25 EU Member States.

Reference Documents

Integrated Certification for Energy Performance and Smart Readiness

A Unified Approach to Building Assessment, fully aligned with the EPBD IV provisions. Access the White Paper and give a look at the future.

Fit for 290! Policy Roadmap

A strategic guidance for Member States and decision-makers to draft harmonised policy, coordinate on the SRI implementation for large non-residential buildings with heating needs of more than 290 kW, as by the EPBD IV by 2027.

Capacity Building Centre

SmarterEPC Support Centre

The right place for public authorities and stakeholders across Europe interested in learning more about EPCs and SRI to find recommendations and resources on EPC and SRI to reach the best impact for the building stocks at the national level.

SmarterEPC Training Centre

This training centre aims to upskill building assessors with the new integrated EPC & SRI procedures and get professionally certified for free!

Questions Contact us!

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