



SMART AND CLEAN ENERGY FOR ALL

Unlocking Energy Efficiency post 2020 Policy background & R&I challenges

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WHAT ARE OUR GOALS?

CREATING JOBS & GROWTH, BRINGING DOWN GREENHOUSE GAS EMISSIONS, SECURING ENERGY SUPPLY



Putting energy
efficiency first

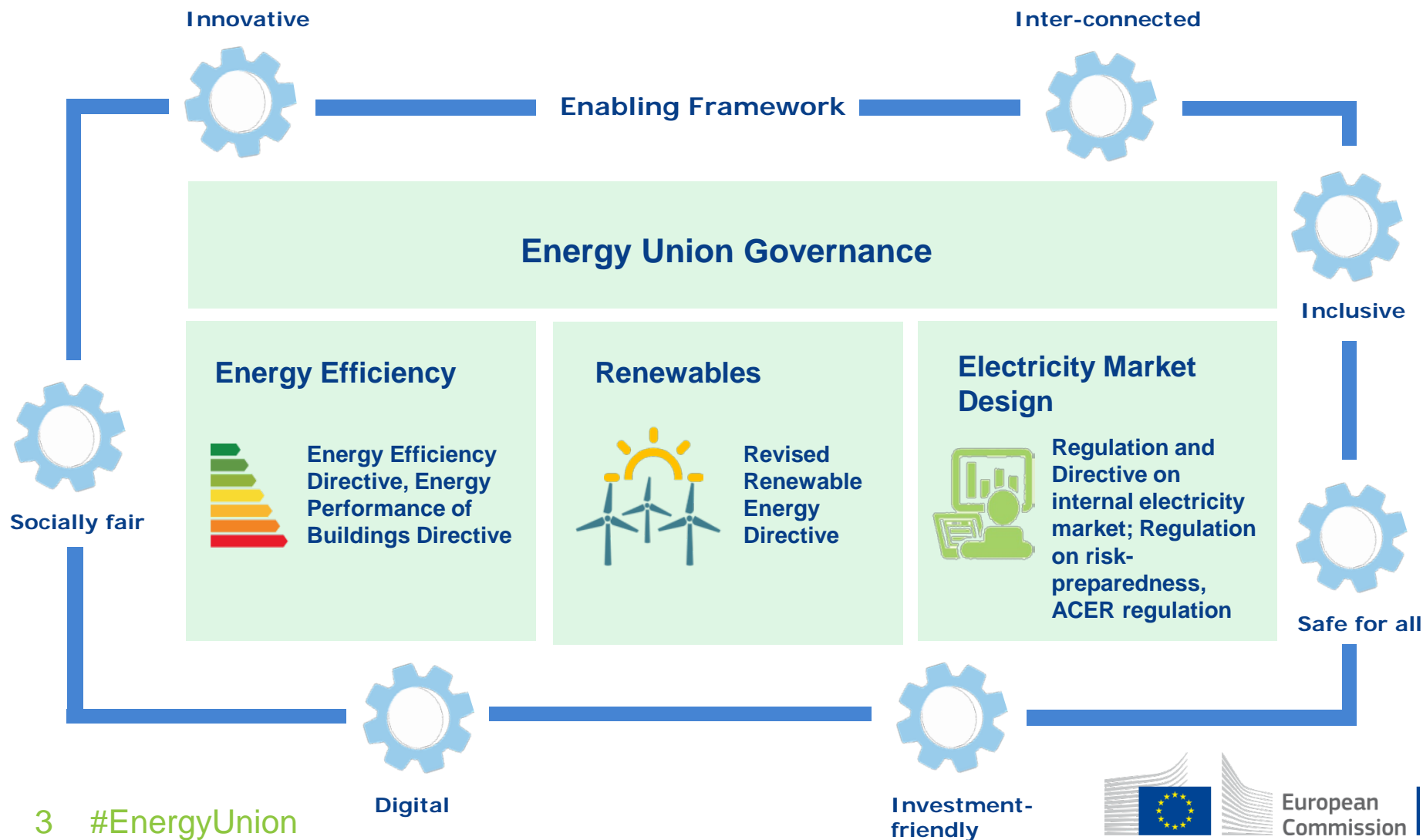


Demonstrating
global leadership
in renewables



Delivering a
fair deal for
consumers

CLEAN ENERGY FOR ALL EUROPEANS PACKAGE



Energy efficiency legislation

ACHIEVING THE BINDING 30% ENERGY EFFICIENCY TARGET BY 2030



Energy Efficiency Directive

- Binding 30% energy efficiency target for 2030
 - Continue & clarify Art. 7 beyond 2020 + consider energy poverty
 - Empower consumers by granting access to information on their energy consumption
- >
- Create 400,000 new jobs
 - Reduce gas imports by 12%
 - Save € 70 billion in fossil fuel imports



Energy Performance of Buildings Directive

- Clear vision for a decarbonised building stock by 2050
- Smart & Efficient buildings through use of Information and Communication Technologies and Smart Technologies; EV-charging
- Smart Finance for Smart Buildings initiative:
 - More effective use of public funding
 - Aggregation of funds
 - De-risking
- Protect vulnerable groups & address energy poverty



Ecodesign Working Plan 2016-2019

- List of new product groups
- Outline on how ecodesign will contribute to circular economy objectives
- Specific measures for verification tolerances and air heating and cooling products
- Guidelines on voluntary agreements

Preparing the ground for smarter homes & buildings

Revision of the Energy Performance of Building Directive (EPBD)



New article 8(6) proposes introducing a **Smart Readiness Indicator for buildings.**

- Will characterize the ability of a building to manage itself,
- To interact with its occupants,
- And to take part in demand response and contribute to smooth, safe and optimal operation of connected energy assets.



Progress towards ‘smarter’ building systems can result in additional benefits for building users, energy consumers and future grids.



The **Smart Readiness Indicator** will support the uptake of technical innovation in the building sector

Good practice in energy efficiency- publication & SWD

Examples of good practice from policy, technology and investment in energy efficiency from different sectors and across Europe



#1	Cross-cutting measures to support energy efficiency	> 6
#2	Energy efficiency in buildings	> 10
#3	Energy efficiency in industry, businesses and services	> 20
#4	Energy efficiency of products	> 28
#5	Setting the right public policy framework	> 32
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Link to the publication:

https://ec.europa.eu/energy/sites/ener/files/documents/good_practice_in_ee_web.pdf

Full document:

Commission Staff Working Document 'Good practice in energy efficiency' Accompanying the document Proposal for a Directive of the European Parliament and of the Council amending Directive 2012/27/EU on Energy Efficiency; SWD/2016/0404 final

THE "SMART FINANCE FOR SMART BUILDINGS" INITIATIVE

MAJOR GOAL - improve investment climate for energy efficiency

More effective use of public funds

- Deploying **Financial Instruments** and flexible energy efficiency and renewable financing platforms
- Building on EFSI II blending with ESIF funds



Assistance and aggregation

- Supporting the project pipeline at EU and local level
- **Project Development Assistance** facilities
- "One-stop-shops"



De-risking

- Understanding the risks and benefits for financiers and investors
- The De-risking Energy Efficiency Platform
- Commonly accepted underwriting framework



Revision of the energy efficiency legislation: conclusions for 2030



Decarbonization
(Paris Agreement)



1. Building renovation has to do more



2. Financing has a more important role to play



3. Digital/ICT has a big potential to:

- *Capture behavioral change potentials*
- *Improve energy performance assessment and measurement accuracy for new business models (guaranteed energy savings)*
- *Activate demand-side resources to optimise energy use within the building and across the system*

R&I challenges to unlock energy efficiency post 2020

1. Upgrading buildings' energy performance and smartness

- *buildings renovation: innovative technologies, skills, and business models (EE1; EE2; EE3);*
- *buildings energy performance assessment: innovation for quality and convergence (EE5);*

2. Energy efficiency is an investment

- *investments standardisation based on reliable data (EE10),*
- *innovative financing schemes with non-energy benefits valuation (EE9),*
- *aggregation of projects (EE11)*
- *mobilisation of cities' investments (EE17)*
- *socio-economic research conceptualising energy efficiency as "first fuel" (EE14)*

3. ICT enable energy transition

- *smarter (existing) buildings (EE4)*
- *smart energy services valorising energy efficiency and consumption flexibility (EE13)*
- *energy communities, collective actions of energy consumers (EC1)*
- *digitalisation of energy (IoT, big data, cybersecurity)*



ENERGY UNION

EnergyUnion #EnergyUnion

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Thank you!

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<https://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energy-transition>