

Energy Sufficiency in Products



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Context

More efficient products, but...

- **More users**
- **More products**
- **More functionalities**
- **More usage**

Sufficiency strategies

Category	Description	Example
Usage	Changing / reducing the way we use a product	<i>Unplugging a product instead of leaving it on standby</i>
Dimensional	Better sizing of products to match people's true needs	<i>Avoiding oversized refrigerators</i>
Substitution	Choosing a different way (e.g. different type of product or less sophisticated one) to fulfil one's needs	<i>Using a tablet instead of a computer to surf on the internet</i>
Collaborative	Increased sharing of products	<i>Sharing a wi-fi access</i>
Radical divestment	Substantial changes in the ownership of products	<i>Dropping the home TV set or the freezer</i>

Sufficiency potentials in a household



50%

Wuppertal Institute & IFEU (2015)

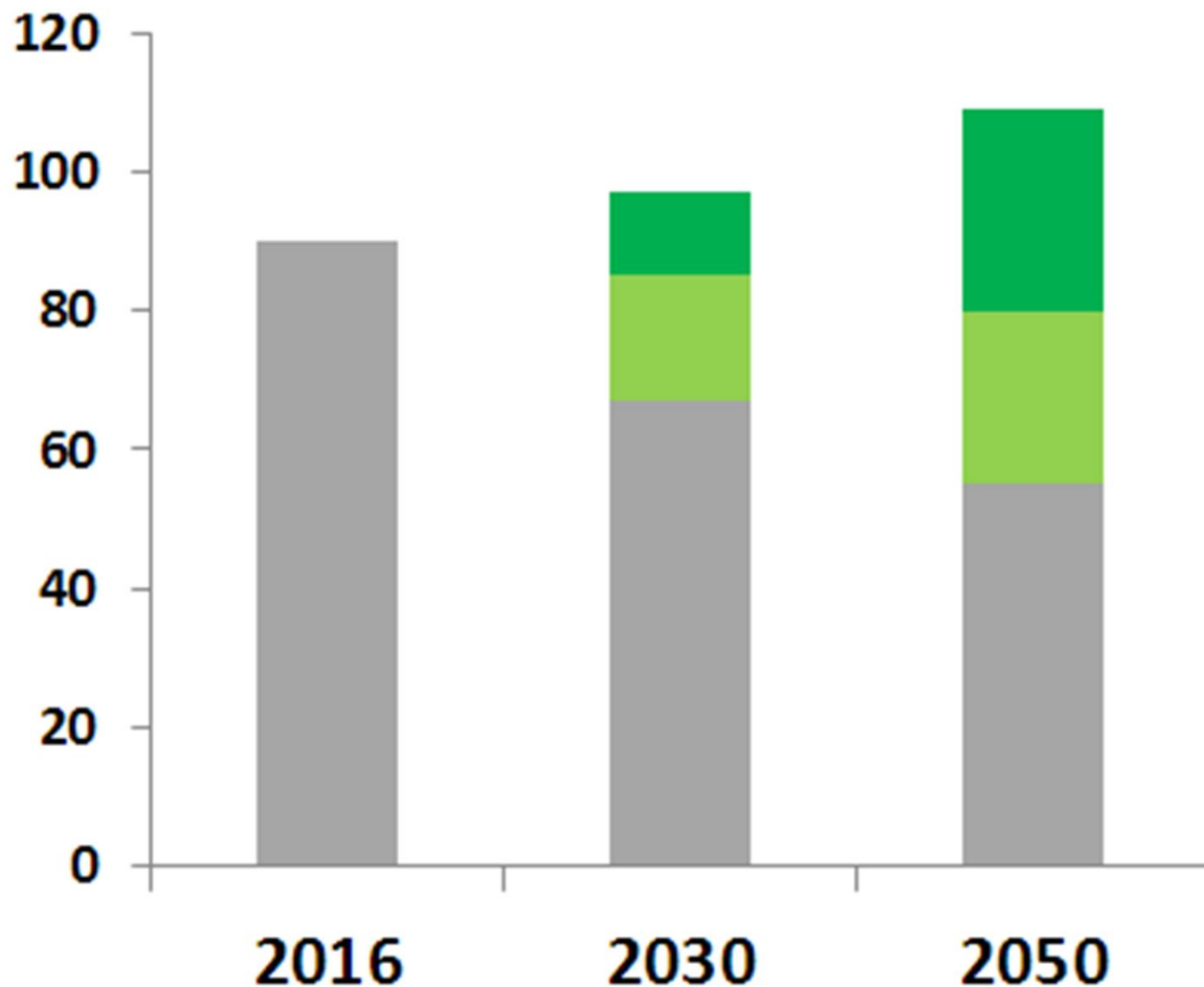
Sufficiency potentials in an office



Own assessment

Energy scenario for a country (France)

TWh/year
(appliances)

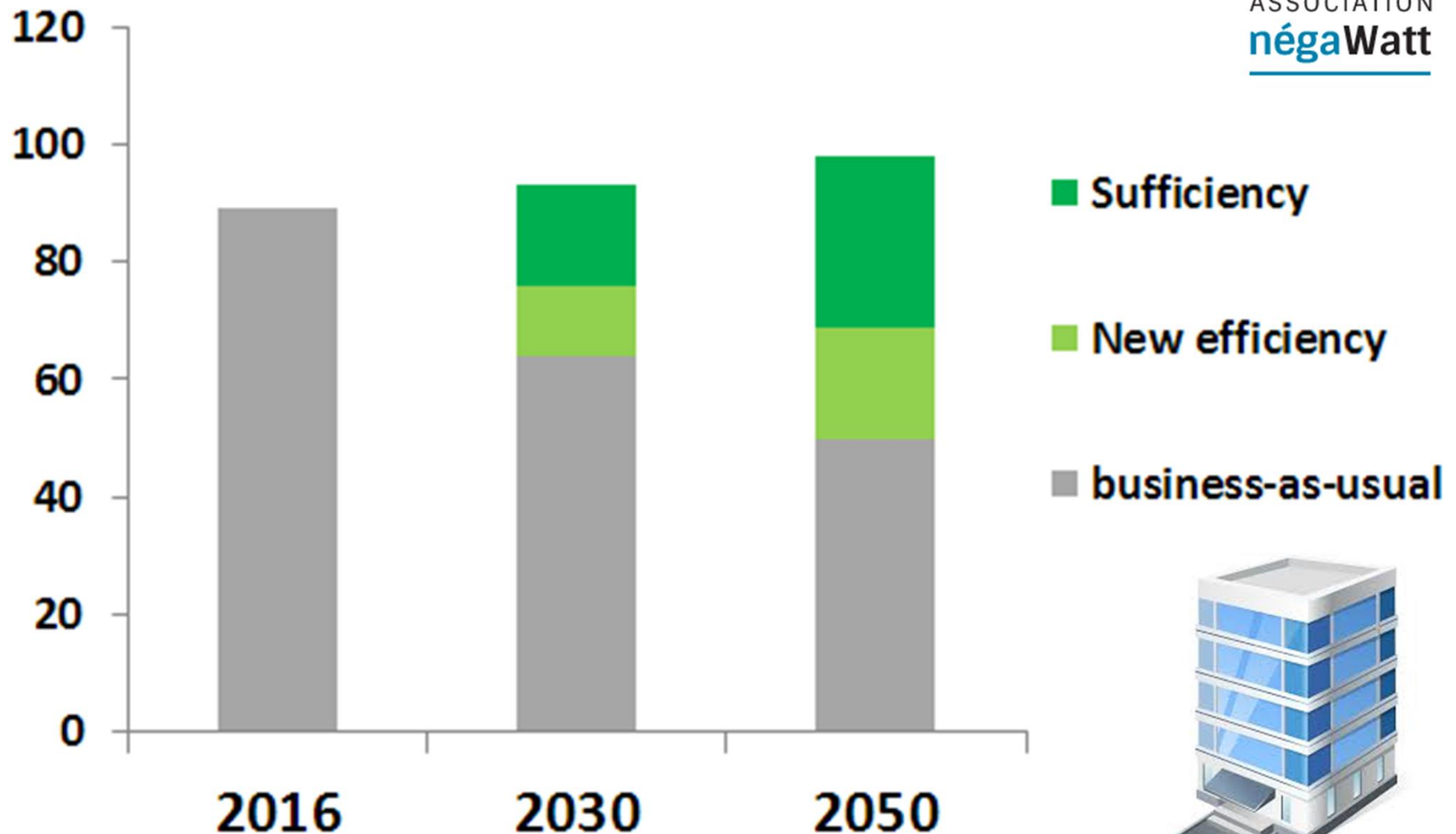


- Sufficiency
- New efficiency
- business-as-usual



Energy scenario for a country (France)

TWh/year
(appliances)





Trends

- **Capitalistic / consumer society values**
- **Dominant social norms of comfort**
- **Energy practices, habits & routines**
- **Energy prices**



Trends

- **Attitudes challenging consumer society**
- **Co-benefits of sufficiency**
- **The sharing economy**
- **Product convergence & intelligence**
- **User feedback & empowerment**

Detailed analysis



Opportunities



➤ **Reasonable capacity**

15%

➤ **Less cycles, at higher load**

25%

➤ **Lower wash temperatures**

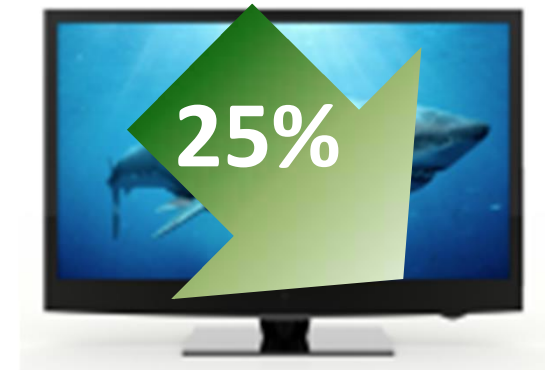
Barriers

➤ **Energy label favouring big capacities**

➤ **Social norms (e.g. cleanliness)**

➤ **Acceptability of longer cycle durations**

Potential estimates



The role of policies

- **Recognition**
- **Communication / education campaigns**

**ECO-RESPONSABLE
AU BUREAU**

LE GUIDE

ADEME



Agence de l'Environnement
et de la Maîtrise de l'Énergie



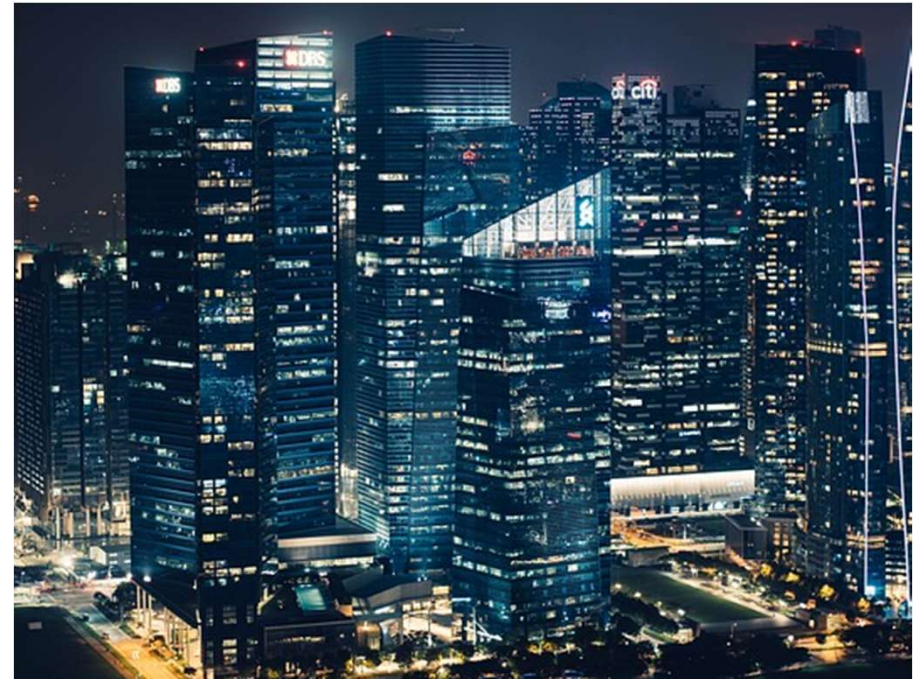
The role of policies

- **Support to sufficiency practices**
- **Changes in comfort standards**



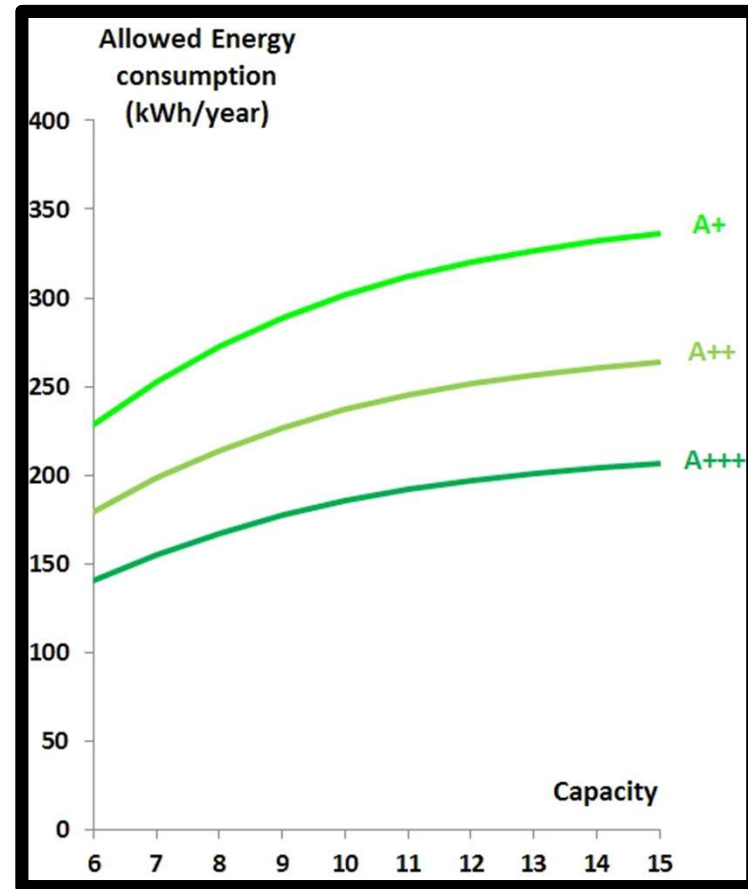
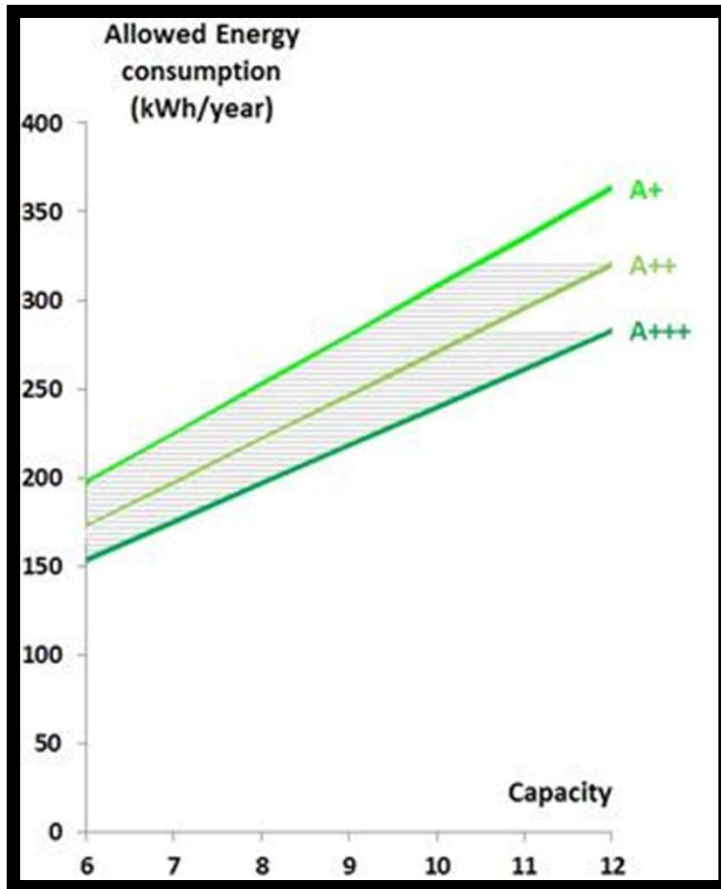
The role of policies

➤ Regulation of most detrimental trends



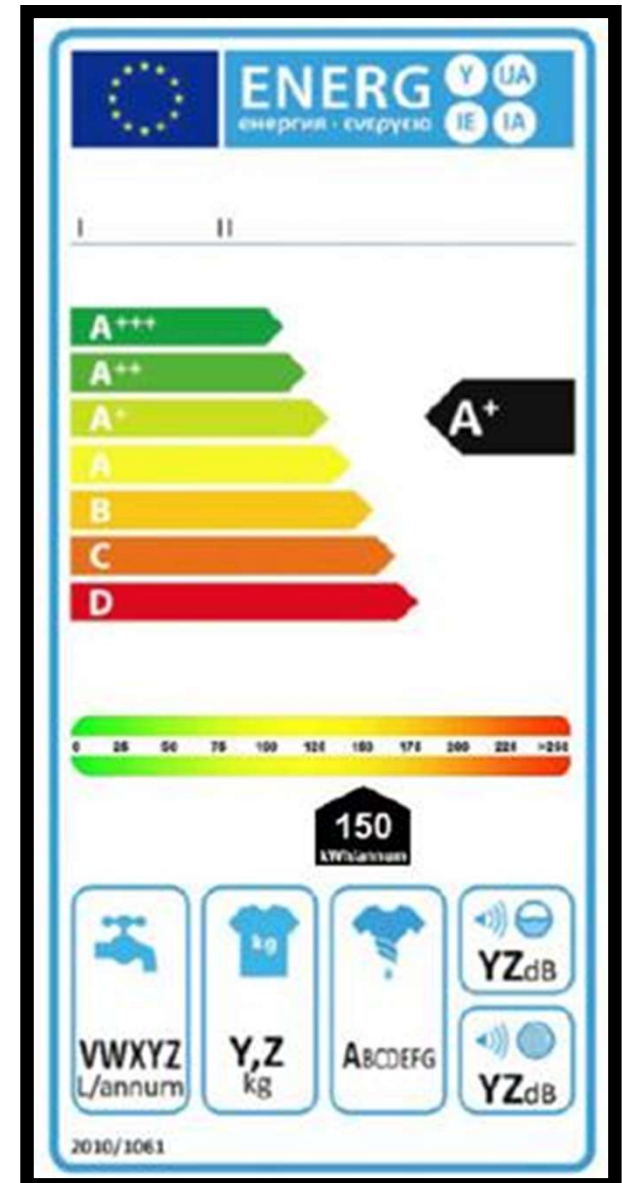
The role of policies

- **Generic product/system requirements**
- **Progressivity in efficiency rules**



The role of policies

- **More visibility on labels**



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A large billboard stands on a grassy field with a dense line of trees in the background. The billboard has a blue background and white text that reads 'Thank you for your attention'. The billboard is supported by a dark, modern-looking metal structure.

Thank you for
your attention