Assessing the personal carbon footprint of French social milieus to develop targeted intervention strategies
(Paper No. 295)

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ADEME
Agence de l'Environnement et de la Maîtrise de l'Energie

Ministère de l'Écologie, de l'Énergie, du Développement durable et de l'Aménagement du territoire
Commissariat Général au Développement Durable
Délégation au Développement Durable
Mission Prospective

sociovision
MASTERING A CHANGING WORLD

eDF

- **What we know…**

  - Technical energy efficiency improvements alone won't be enough to cut GHG emissions sufficiently, it is also very much a question of people's lifestyles

  - There is not one standard consumer/citizen, but different segments of society with differing consumption patterns and carbon footprints

  - Too many instruments intended to shape consumption patterns are still following a universal one size fits all approach

- **Therefore the MDU project aims to...**

  - analyse the variances of GHG emissions related to the current French Sinus®Milieu typology

  - develop specific "intervention strategies" that target the major consumption sectors of the Sinus®Milieus...

  - ...taking into account typical sociocultural and socioeconomic characteristics of those milieus

Agenda

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1. What are SinusMilieux?®

2. Assessment of the personal carbon footprint with *Bilan Carbone Personnel*®

3. Development of targeted intervention strategies
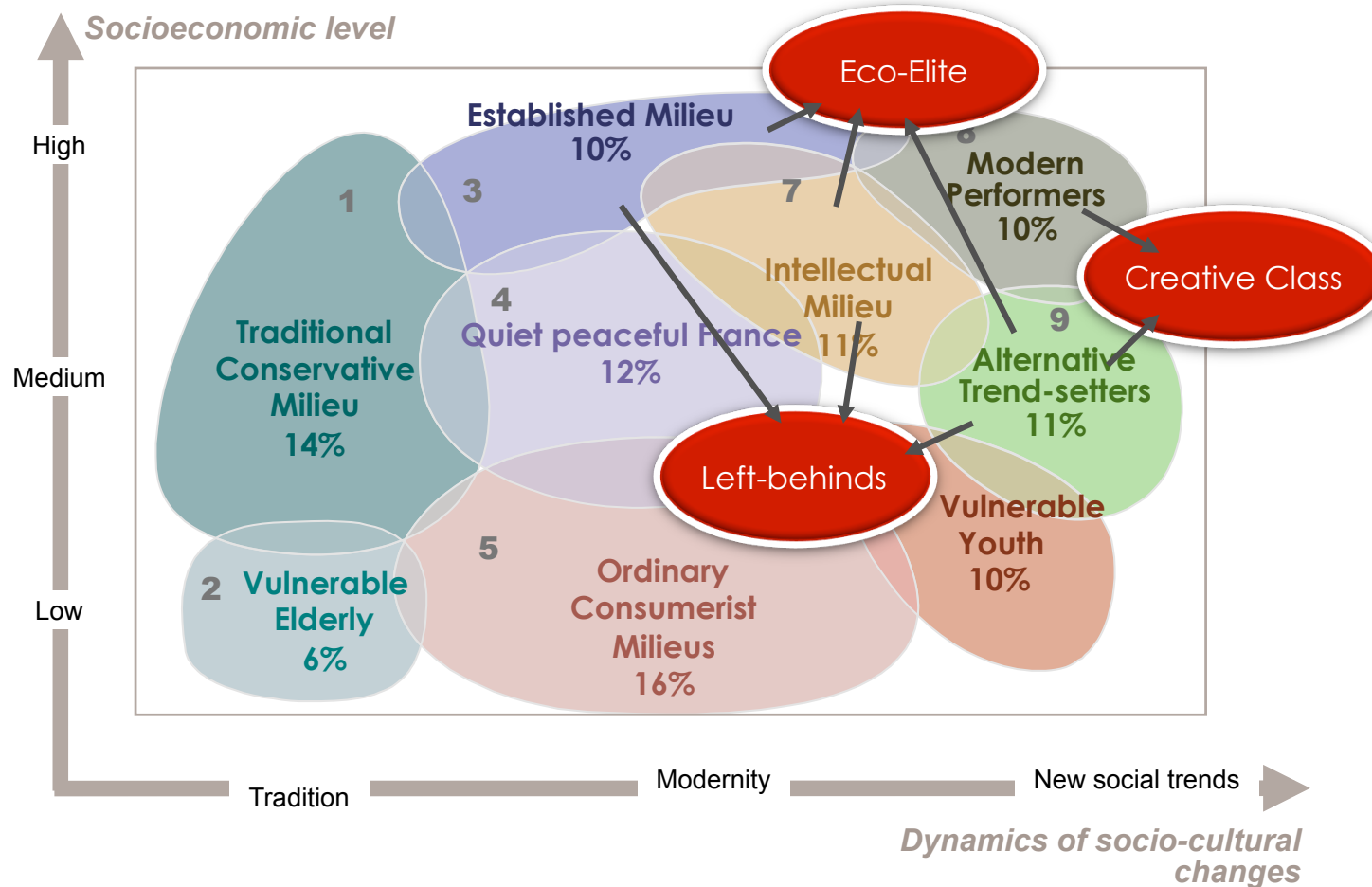
4. Concluding remarks

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What are the Sinus Milieux ®?

Socioeconomic level

- High
- Medium
- Low

- **Eco-Elite**
- **Established Milieu** 10%
- **Modern Performers** 10%
- **Intellectual Milieu** 11%
- **Creative Class**
- 1 **Traditional Conservative Milieu** 14%
- 3
- 4 **Quiet peaceful France** 12%
- 7
- 9 **Alternative Trend-setters** 11%
- **Left-behinds**
- **Vulnerable Youth** 10%
- 2 **Vulnerable Elderly** 6%
- 5 **Ordinary Consumerist Milieus** 16%

Tradition — Modernity — New social trends

Dynamics of socio-cultural changes

Source:
Sociovision 2010

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"The Sinus-Milieux® describe coherent universes of life, of values, behaviours, which structure consumption as well as political and civic life. They enable us to perceive people in all the richness of their life context, and their attitudes to work, family, leisure, money and consumption."
(http://website.sociovision.fr/sociovision/page?rep1=SM&rep2=Group&nom=princ-sm-uk)

The Sinus Milieux® segmentation – background information

- developed in the 1990s by the French market research company Sociovision with its German partner Sinus-Insitut

- updated on a yearly basis; trend research on emerging new social milieus

- based on a representative survey of 2000-2500 interviewed persons (aged 15 and older) who are selected by quota sampling.

- complemented by numerous extensive qualitative interviews to confirm the Milieux that are determined statistically with cluster analysis.

- classical, vertical, socioeconomic dimension and a horizontal modernity axis, situating social milieus between traditional and "progressive" life styles.

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- The personal carbon footprint was assessed using ADEME's online tool: **Bilan Carbone Personnel**

- **4 consumption sectors:**

  – Food: meat and fish, dairy products, fruit and vegetables, etc.

  – Transports: car, motorcycle, plane, public transports

  – Domestic consumption: space heating, hot water, electricity

  – Consumption of good and services: clothing, leisure, entertainment

- **Data sources:**

  – Sociovision field surveys

  – In some cases complemented by other national statistics (INSEE)

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- The dominant characteristics of the milieux remain close to the French average, which weakens the variations from one Milieu to another.

- **Concrete profiles** were defined to accentuate the **specificities of each different milieu**

What is the floor area of your accommodation?													
	F	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
Less than 30 m²	**2,5**	3,6	2,9	2,6	1,5	0,7	3,0	1,0	1,5	3,0	3,4	6,7	3,5
31 to 60 m²	**15,8**	17,9	14,4	17,5	13,4	10,7	14,1	14,9	15,1	24,3	12,0	26,7	15,3
61 to 90 m²	**31,9**	32,2	27,8	30,5	32,3	30,3	36,2	34,8	33,9	29,9	23,4	31,0	34,8
91 to 120 m²	**28,5**	27,0	36,0	28,2	36,4	25,5	28,0	28,1	26,3	22,4	33,7	20,2	27,5
121 to 160 m²	**12,4**	8,3	13,7	11,3	12,0	16,1	14,1	11,1	11,3	16,7	15,9	7,5	10,6
More than 160 m²	**6,5**	8,7	4,8	6,4	3,4	12,7	2,7	7,3	11,8	2,4	8,3	5,5	3,6
(I don't know)	**2,5**	2,2	0,4	3,6	1,0	4,0	1,8	2,7	0,0	1,3	3,3	2,4	4,7

- Particular attention to the **realism and the coherence** of chosen hypotheses, for instance:
  - Type of accommodation and floor area
  - Heating system and construction period

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- 65-year-old retired woman

- Lives alone in a rural area

- Net monthly income: 900€

- Attached house with 90 m² floor area

- House constructed between 1915 and 194...

- Heating system: domestic oil + wood stove

- Low goods consumption

- Equipment rate in electronic and computer devices much lower than the average

- Low mobility, uses car for short travels
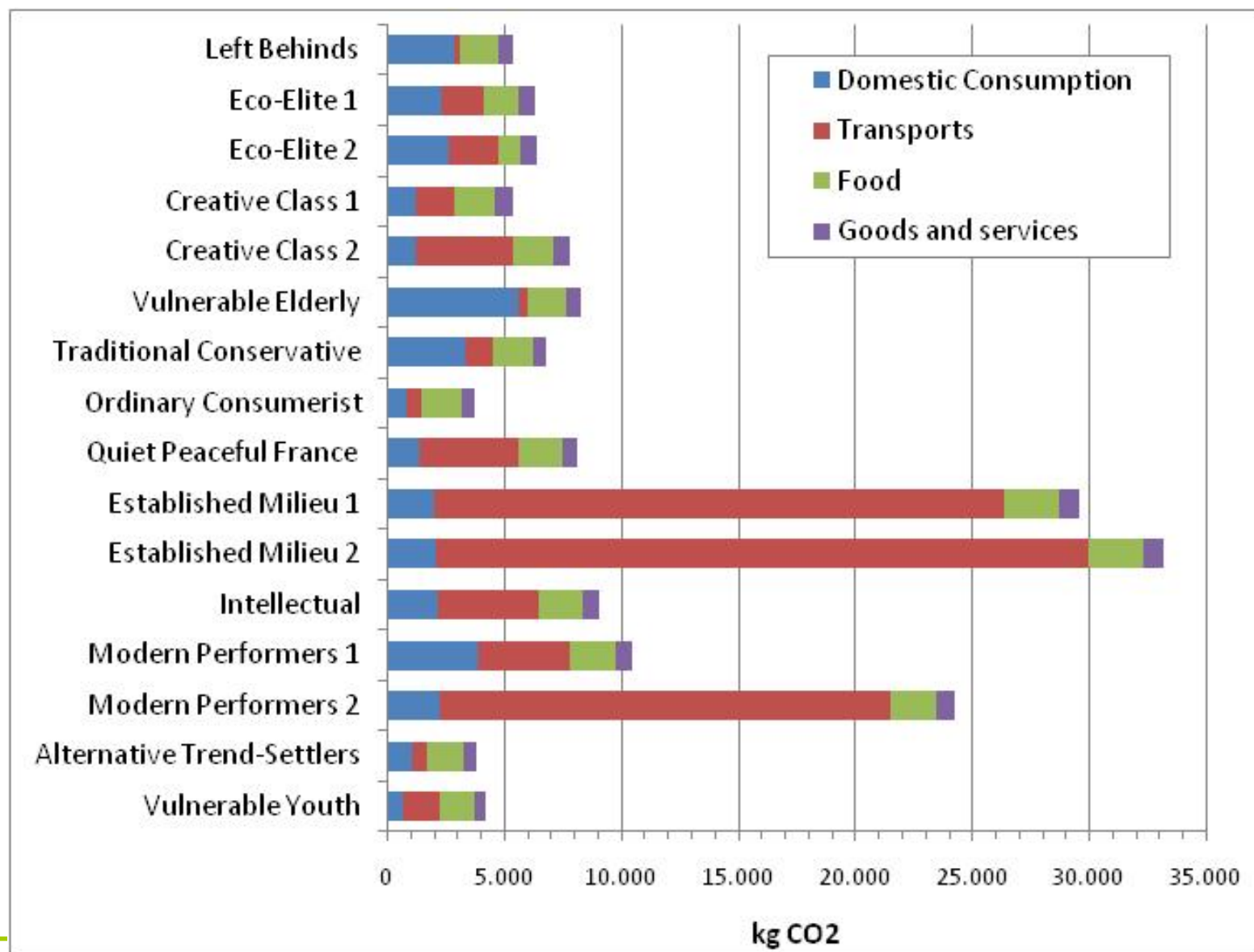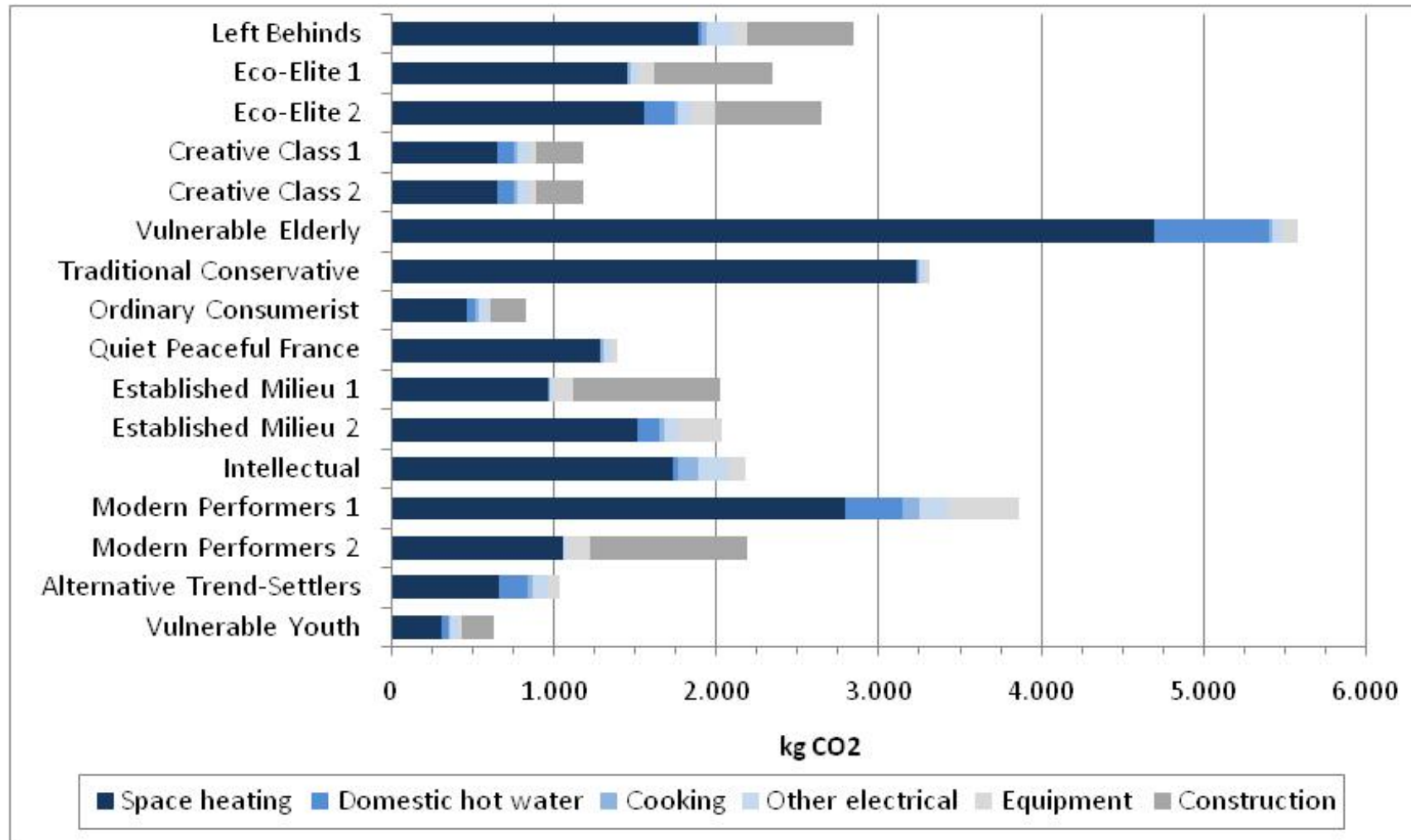
- Etc.

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Global personal carbon footprints

Detailed personal carbon footprints: domestic consumption

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kg CO2

Legend: Cars ■ 2-wheelers ■ Plane ■ Public transports

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Detailed personal carbon footprints: food

kg CO2

Legend: Meat and fish · Dairy products · Fruit and vegetable · Drinks · Misc.

Categories (top to bottom): Left Behinds, Eco-Elite 1, Eco-Elite 2, Creative Class 1, Creative Class 2, Vulnerable Elderly, Traditional Conservative, Ordinary Consumerist, Quiet Peaceful France, Established Milieu 1, Established Milieu 2, Intellectual, Modern Performers 1, Modern Performers 2, Alternative Trend-Settlers, Vulnerable Youth

Detailed personal carbon footprints: goods and services
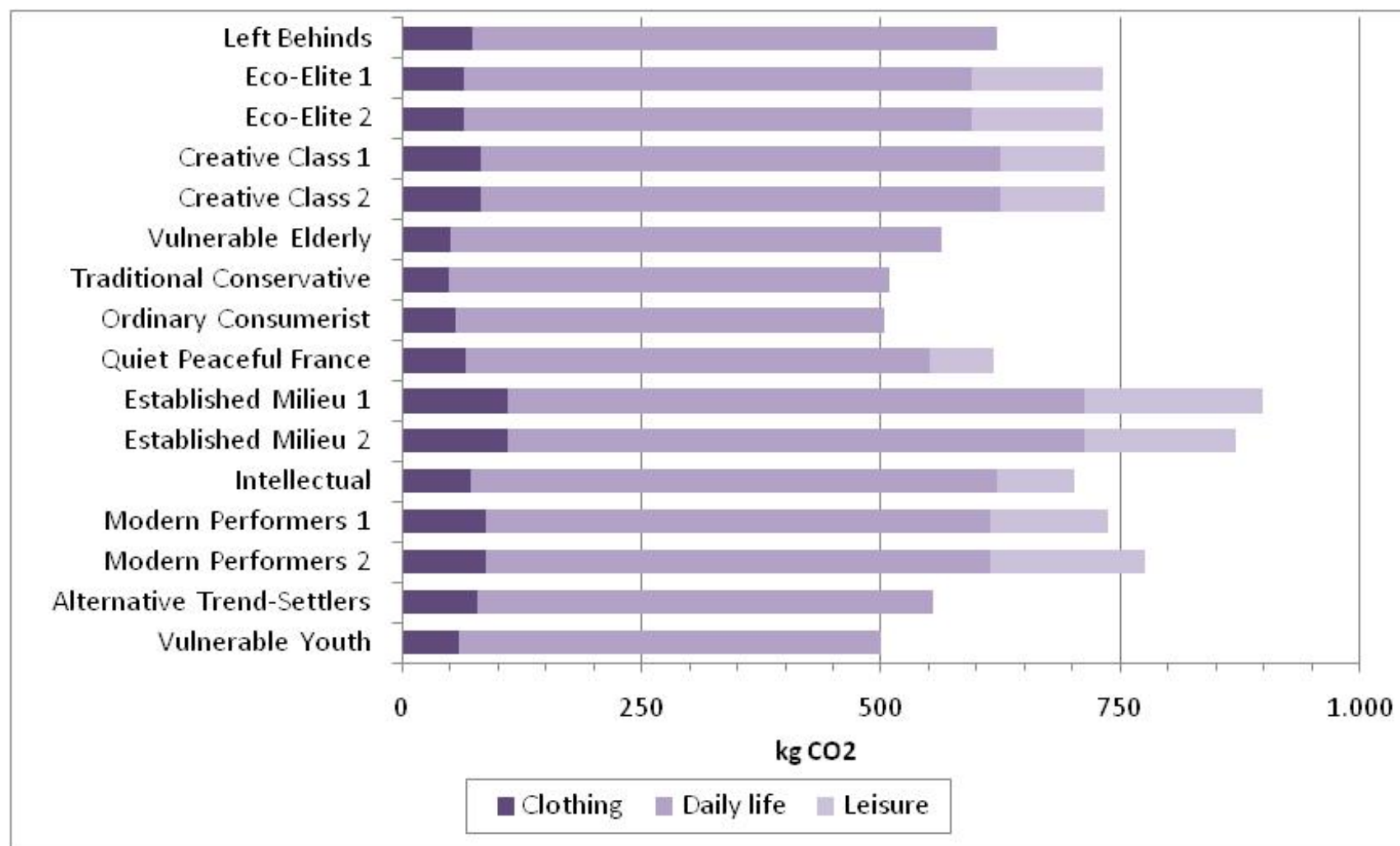
	kg CO2
Left Behinds	
Eco-Elite 1	
Eco-Elite 2	
Creative Class 1	
Creative Class 2	
Vulnerable Elderly	
Traditional Conservative	
Ordinary Consumerist	
Quiet Peaceful France	
Established Milieu 1	
Established Milieu 2	
Intellectual	
Modern Performers 1	
Modern Performers 2	
Alternative Trend-Settlers	
Vulnerable Youth	

Clothing   Daily life   Leisure

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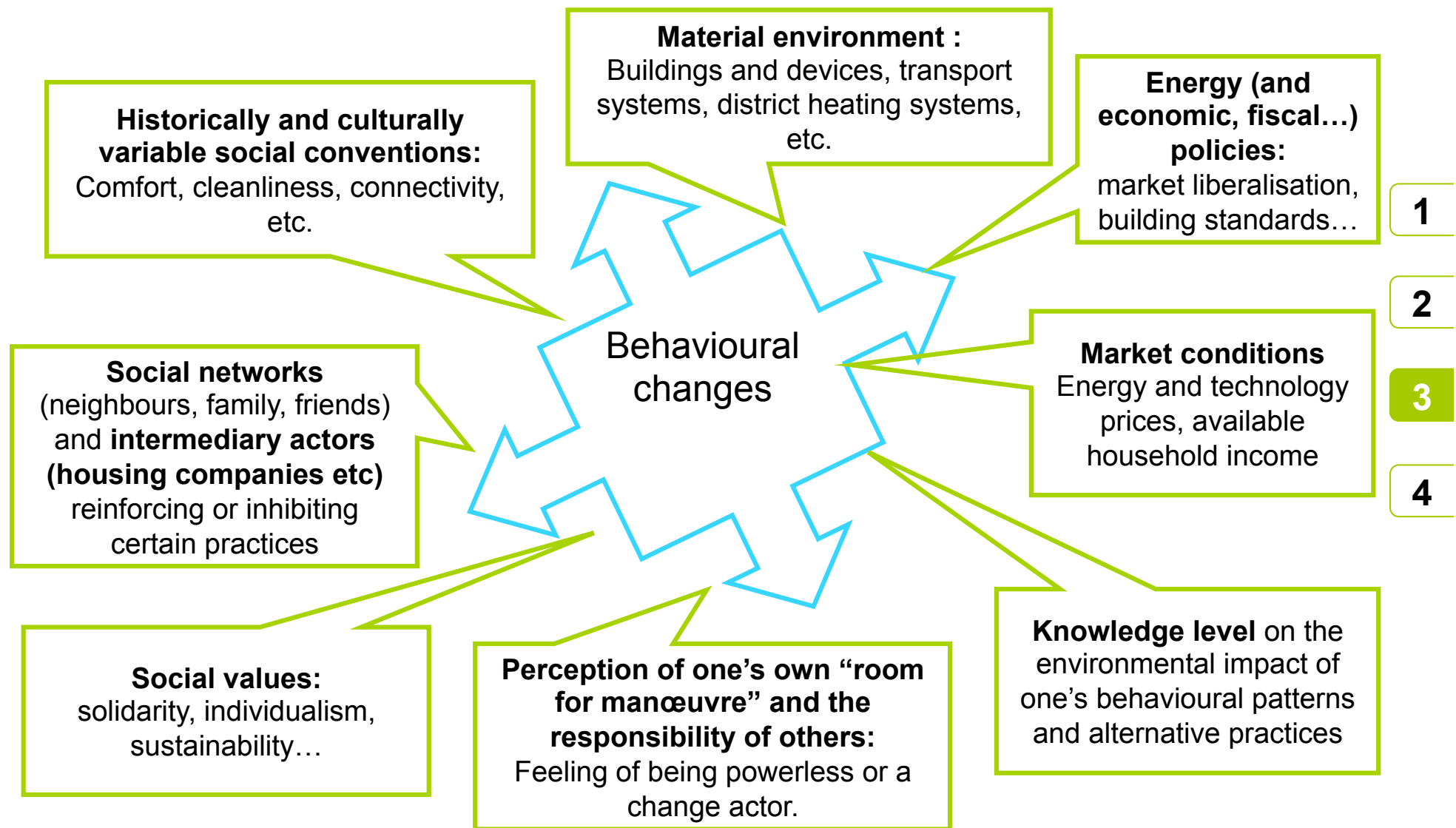
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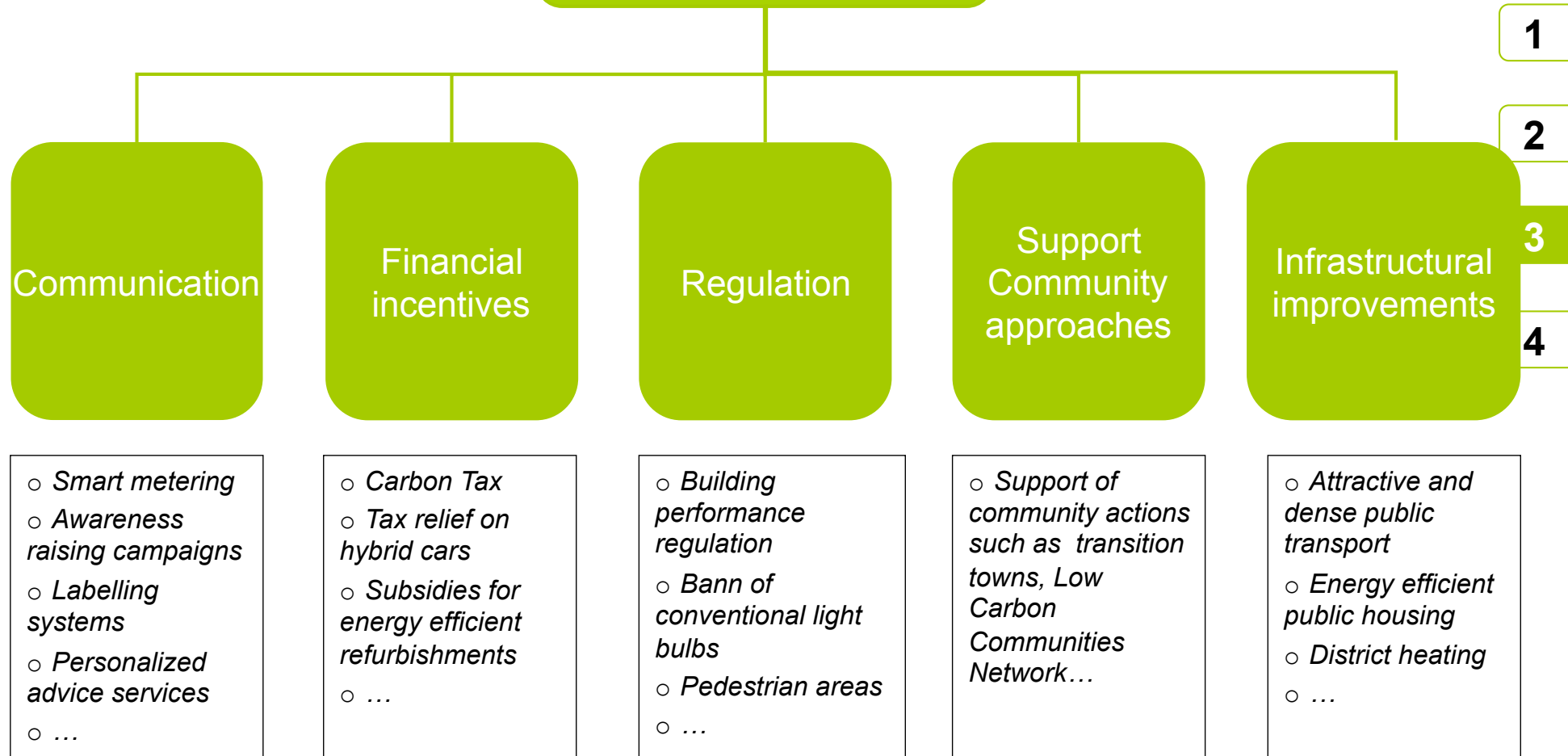
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Identifying behavioural factors

Material environment :
Buildings and devices, transport systems, district heating systems, etc.

Energy (and economic, fiscal…) policies:
market liberalisation, building standards…

Historically and culturally variable social conventions:
Comfort, cleanliness, connectivity, etc.

Behavioural changes

Social networks (neighbours, family, friends) and **intermediary actors (housing companies etc)** reinforcing or inhibiting certain practices

Market conditions
Energy and technology prices, available household income

Social values: solidarity, individualism, sustainability…

Perception of one's own "room for manœuvre" and the responsibility of others:
Feeling of being powerless or a change actor.

Knowledge level on the environmental impact of one's behavioural patterns and alternative practices

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→ These parameters have to be studied for each milieu!

Types of intervention strategies

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Intervention strategies

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Communication

Financial incentives

Regulation

Support Community approaches

Infrastructural improvements

Communication	Financial incentives	Regulation	Support Community approaches	Infrastructural improvements
o *Smart metering* o *Awareness raising campaigns* o *Labelling systems* o *Personalized advice services* o *…*	o *Carbon Tax* o *Tax relief on hybrid cars* o *Subsidies for energy efficient refurbishments* o *…*	o *Building performance regulation* o *Bann of conventional light bulbs* o *Pedestrian areas* o *…*	o *Support of community actions such as transition towns, Low Carbon Communities Network…*	o *Attractive and dense public transport* o *Energy efficient public housing* o *District heating* o *…*

→ Combinations are very often useful or even necessary

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10%
Discount

REVENU
de
MISÈRE
et
d'ASSERVISSEM

domestic oil + wood stove

old poorly insulated houses
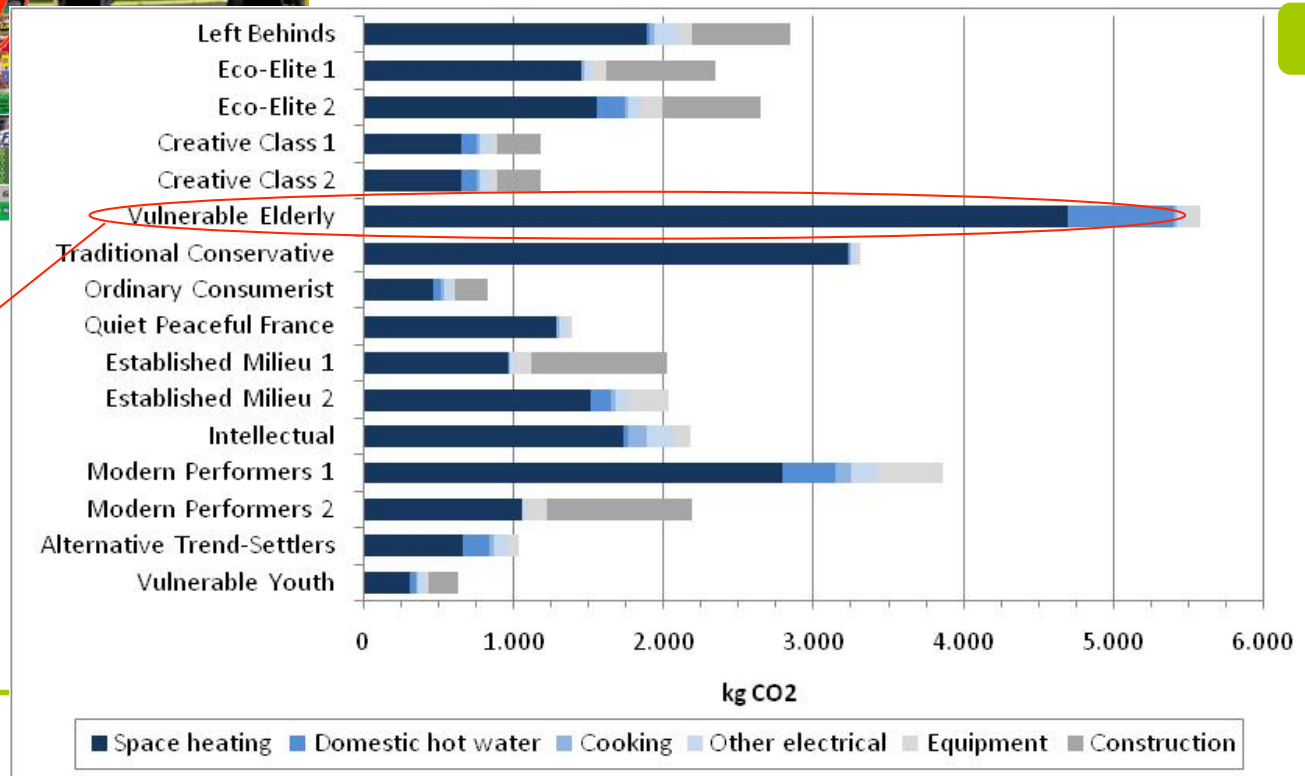
	kg CO2
Left Behinds	
Eco-Elite 1	
Eco-Elite 2	
Creative Class 1	
Creative Class 2	
Vulnerable Elderly	
Traditional Conservative	
Ordinary Consumerist	
Quiet Peaceful France	
Established Milieu 1	
Established Milieu 2	
Intellectual	
Modern Performers 1	
Modern Performers 2	
Alternative Trend-Settlers	
Vulnerable Youth	

0   1.000   2.000   3.000   4.000   5.000   6.000

kg CO2

■ Space heating ■ Domestic hot water ■ Cooking □ Other electrical ▨ Equipment ▨ Construction

Important milieu characteristics to be taken into account:

- feeling of being excluded, left behind; scepticism towards the current political and economic system → "access" difficult for classical "system" institutions

- very low incomes, retired people → low willingness/inability to make major investments;

- small social networks, live reclusively in their basic homes;

- only trusted persons: family members and people in similar living conditions → an intervention might be built on them

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Twofold suggested intervention strategy:

1) **Personalised home-advice service for the "low hanging fruits"**

- ✓ support for optimising the use of the existing heating system, advice on energy saving ventilation and heating practices

- ✓ advertise the funding scheme (2nd instrument see below)

- ✓ provided by **trained elderly persons in comparable living conditions**

- ✓ Training provided by local energy information centres ("points info energie"), energy agencies or NGOs

- ✓ Savings of 10-15% possible

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2)   Innovative funding scheme needed for "deep renovations"

- ✓ the current available financial incentives (éco-prêt) won't be sufficient as incentive

- ✓ one promising option: energy efficiency commitments imposed on suppliers (ex. UK)

- ✓ precise requirement to invest in homes of low-income, retired persons

- ✓ to be integrated in the French white certificates scheme

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Example 2: Eco Left-behinds ("éco-solidaires")

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Important milieu characteristics to be taken into account:

- New emerging milieu, still small in quantitative terms

- Critical towards market liberalism and globalization ("décroissance")

- Search for new, experimental forms of living

- High coherence between green value orientation and practices

- Climate change seen as a challenge for collective, solidarity-based action, as a "new start option"

- Act locally!

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"Positive" supporting intervention strategy for community-based action:

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- ✓ main actors: cities and municipalities

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- ✓ provide opportunities for experimentation, e.g. unused space for community gardening

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- ✓ stimulate competition and information exchange between different communities around the best ideas

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- ✓ provide funding which is not bound to strict saving targets or pre-defined measures to adopt, but allows failing

- ✓ give successful initiatives a high visibility at local level to engage other citizens

- ✓ build the bridges to associations, companies, parties etc of the existing "regime" to "normalise" new practices

Concluding remarks

- Intervention strategies face a legitimacy challenge: How far can policy makers go in shaping people's private life?

  → Conflict between personal liberty and the protection of a common good which is the climate.

- (Climate protection) intervention strategies are potentially in conflict with other policy areas: fiscal policies, growth-based economic and employment policies

- Both problems point to the need of strong political leaders, intense social debate and participative forms of governance

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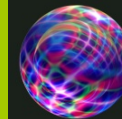
Thank you for your attention!

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