



Vlaanderen
is energie en klimaat

Capacity and skills needed for the Renovation Strategy in Flanders



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VLAAMS
ENERGIE- &
KLIMAATAGENTSCHAP





- Labour market today in Flanders
- Long term renovation strategy: targets and investments
- Additional workforce needed
- Additional skills needed
- From needs assesment to action plan
- Action plan: under construction: tackle 4 challenges
- Conclusions
and topics for discussion



Labour market today in Flanders

- ▶ 200.000 people working in 'building sector' – half of them construction workers
- ▶ **Inflow** construction workers **3% lower than outflow** because of retirement and sector leavers for other reasons (80% of outflow)
- ▶ **31%** of construction workers are **foreign seconded workers**, more and more from outside EU.

▶ **Short of hands already!**

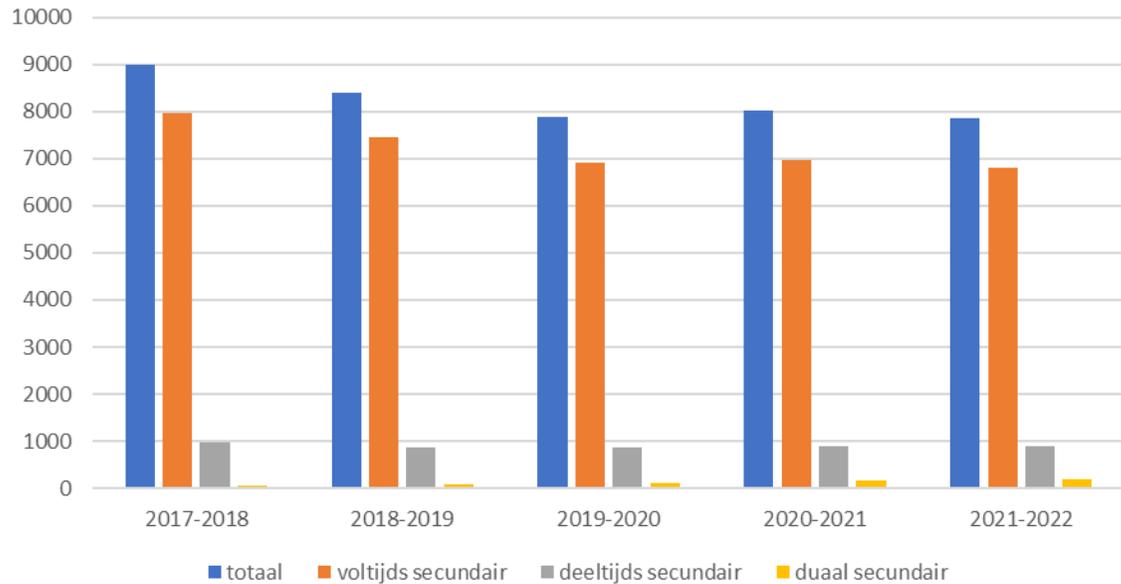
- 95% of construction firms report shortages
- Estimated shortage of 10.000 à 11.000 workers in Flanders
- Ratio vacancies/jobs 8% >> average 4,7%,
- Many building occupations are bottleneck occupation: tension indicator: #jobseekers/#vacancies
 - × Construction site manager 0.52
 - × Refrigeration technician 0.45
 - × Heating installation technician 1,7
 - >< Median all occupations is 5.9



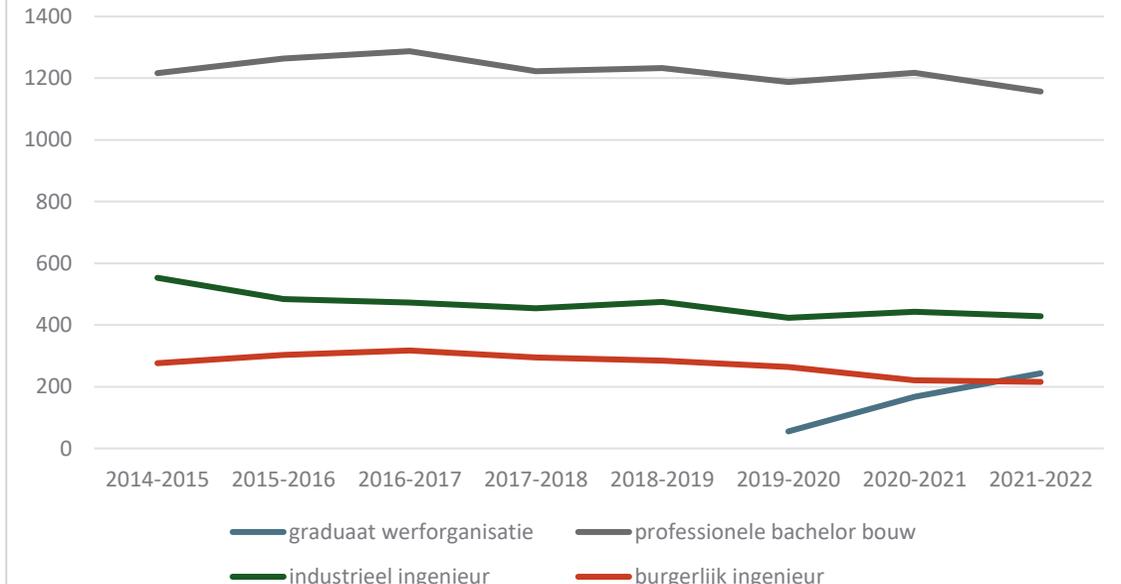
Education for building sector

- ▶ Number of students in building education declines/stabilizes at low level:
 - Secondary school: 7868 enrolments in 2021-22
 - Higher education: 2044 enrolments.

Evolutie van secundair bouwonderwijs
(in aantal leerlingen)



Evolutie van het hoger en universitair bouwonderwijs
(in aantal inschrijvingen)



Targets Long Term Renovation Strategy 2050



Houses

All dwellings meet EPC label A by 2050

From now on 100.000 houses each year should undergo an energy-efficient renovation

Estimated number of houses with EPC-label A:

- 2019: 3,8%
- 2020: 4,6%
- 2021: 5,7%
- 2022: 6,7%

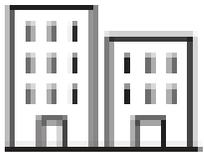
Non-residential buildings

Carbon-neutral building stock by 2050, with the government leading by example.

Ca. 250.000 buildings need energetic renovation between 2020 and 2050

No figures yet on number of buildings which are already carbon-neutral.

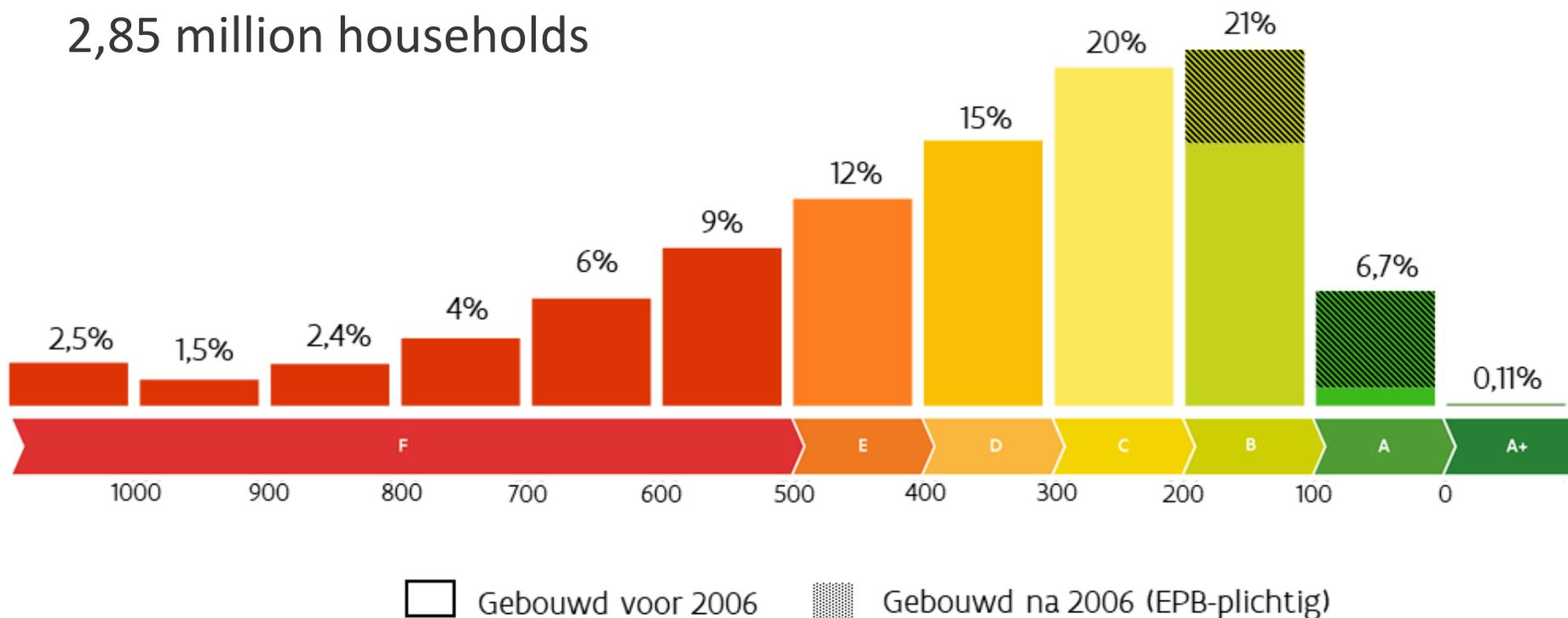
EPC becomes compulsory for non-residential buildings (2024-2026)



Current EPC-label distribution houses



3,3 million houses
2,85 million households



Share A-label:

- 2019: 3,8%
- 2020: 4,6%
- 2021: 5,7%
- 2022: 6,8%

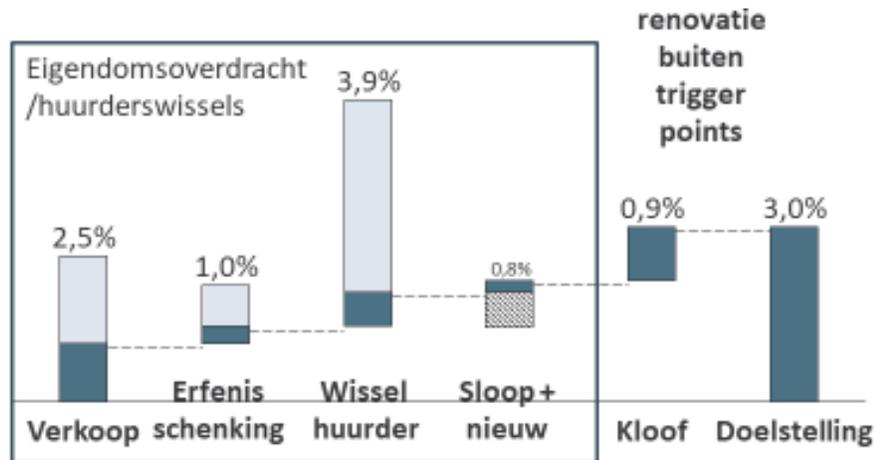
- + 1%/year

> Should be
3,3%/year in
2022-2050

Strategic options LTRS residential



| | F | E | D | C | B | A |
|------|-----|-----|-----|-----|-----|------|
| 2020 | 36% | 15% | 17% | 17% | 10% | 5% |
| 2030 | | 22% | 24% | 24% | 17% | 12% |
| 2035 | | | 30% | 30% | 23% | 18% |
| 2040 | | | | 40% | 33% | 28% |
| 2045 | | | | | 53% | 48% |
| 2050 | | | | | | 100% |



Phasing out worst homes



Use key moments



Renovate as ambitious as possible

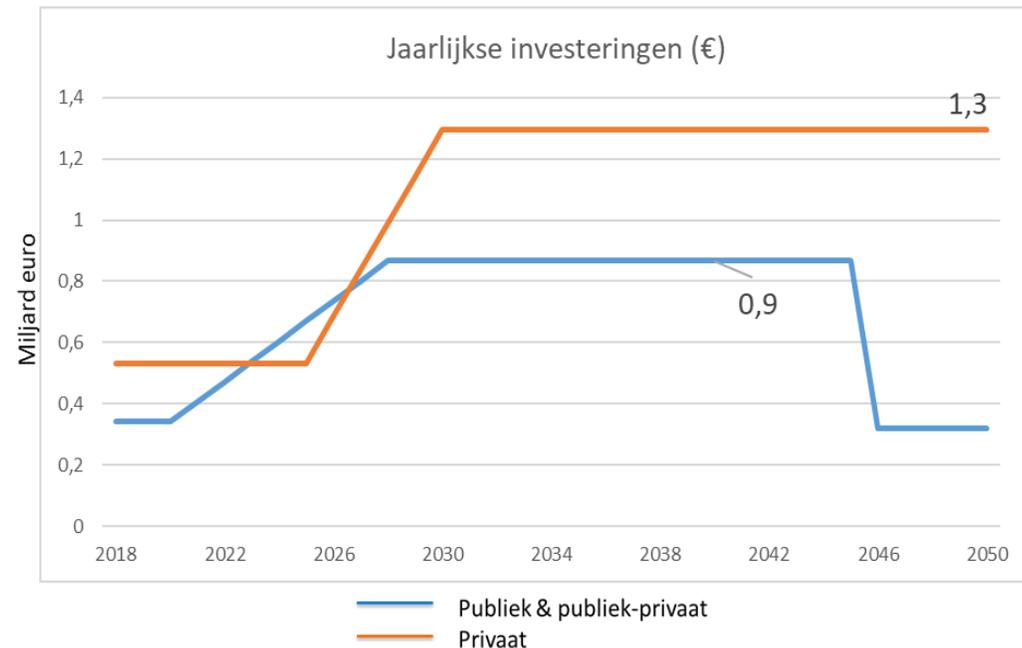
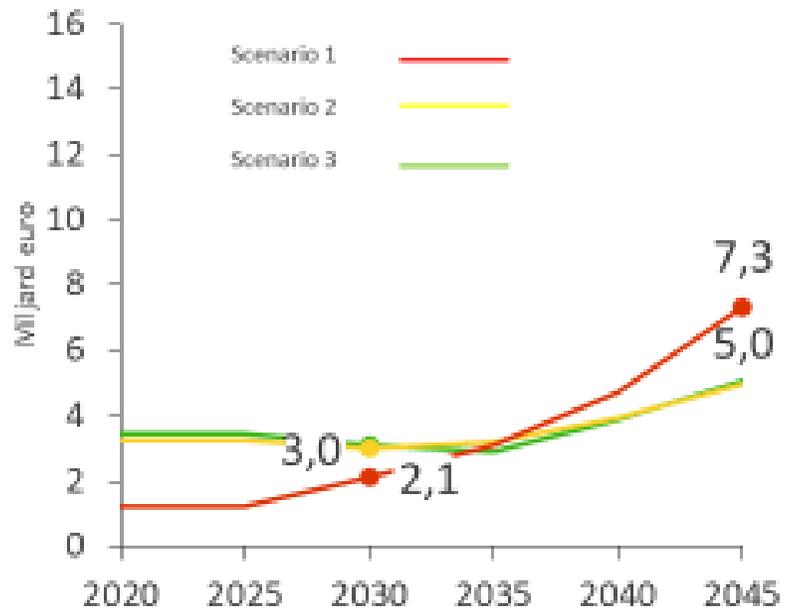
Mix instruments for a strong increase of the renovation rate

Additional investments needed

► Via modelling: estimation of additional investments needed to reach Flemish LTRS:

→ In total: 150 billion € voor houses + 57 billion € tertiary buildings

→ Evolution yearly investment volumes in time



Additional labour force needed

- ▶ Evolution yearly investment volume:
 - 4,3 à 5,2 billion/year by 2030
 - 7,2 à 9,5 billion/year by 2045.
- ▶ Employment multiplier from Interregional IO table:
 - × 9 jobs in whole economy per M€ final demand building sectors
 - × **4 jobs in construction sector per M€ final demand building sectors (initial employment)**
 - **Expansion demand in the building sector:**
 - × **17.200 à 20.800 jobs by 2030**
 - × 28.800 à 38.000 jobs by 2045
 - To be added to **replacement demand**: 15.000 à 23.000 jobs.
- ▶ In total **>30.000 additional jobs by 2030** and **>40.000 additional jobs by 2045** in the Flemish building sector.
This is 3x the current yearly inflow of construction workers!

Additional skills needed

► Competence prognoses:

- By Constructiv (sector fund) for construction workers in 'renovation'
- By Flux50 (energy cluster) for all jobs in the 'installation sector'
- By Frixis (professional association) for refrigeration technicians
- Additional generic and professional competences needed
- Training and schools do not always match these needs



Urgent case: heat pump installers

- ▶ Demand for residential heat pumps min x 3
- ▶ Twice as many extra needed as current number?
 - Now +/- 1500 HP installers in Flanders
 - Sector federation survey: 82% of members has heatpump installation experience (1 out of 3 only started recently)
- ▶ **Bottlenecks:**
 - Educational offer: sometimes outdated, geographically poorly distributed
 - Limited training capacity for F-gas free technologies
 - Motivation for training/education? Sector federation survey: almost 50% of installers without HP experience want to upskill.
- ▶ We updated certification training material and exams
- ▶ We participate in Interreg project **Energiek Onderwijs**
 - <https://www.grensregio.eu/projecten/energiek-onderwijs>
 - Stimulate technicians to upskill to heat pump installers

From needs assessment to action plan

- ▶ Action in NECP 2021-2030: action plan for more capacity for the renovation
 - Many initiatives (e.g., training subsidies for companies, sector covenants, promotion of technique and science in education) but no overall plan
 - Long discussion about responsibility
- ▶ Detailed and underpinned needs assessment by VEKA
- ▶ Alarm signals Energy Houses: construction sector cannot follow increased demand for renovation

Agreement of Ministers of Education, Work and Energy to set up an overall action plan (dec 2022)

Intersectoral covenant is being prepared with the sectors construction, wood, electricians, white-collar workers, real estate, liberal professions, green sectors, local authorities.

Action plan for 4 challenges

1. **More inflow in building jobs**
2. **Less outflow from building jobs**
3. **Give graduates and actives the necessary competences, skills and knowledge to realise the energy and climate transition in the building sector**
4. **Use available workforce as efficiently as possible**

More inflow – Less outflow

1. Education policy
 2. Activation policy
 - Social economy enterprises can deliver!
 3. More mobility of work force
 - Entrants from other sectors
 - Inflow from abroad.
- ▶ Avoid unwanted effects:
 - More foreign workers might discourage local youngsters to chose for the building sector if pressure on wages or bad working conditions
 - ▶ Better working conditions
 - Sustainable employment contracts for all (Belgian and foreign) construction professionals. Public procurement can give the good example!
 - Workable jobs through innovation and automatisisation (less heavy) and local work (less travel)...
 - Old workers can take up new roles (coach, trainer...)

Competences, skills and knowledge

- ▶ **New competences for the climate transition in all trainings**
 - secondary and higher education,
 - in-service training and retraining
 - certification of new skills: but avoid barrier
- ▶ **More workplace learning**
- ▶ **More and better supported teachers**
 - train the trainer!
- ▶ **More and more adapted in-career training/upskilling for all**
 - for self-employed workers,
 - employees of small construction companies
 - foreign workers



More CO₂ reduction with less labour

- ▶ Move focus from energy efficiency (labour intensive renovations – risk of rebound) to defossilisation (heatpumps)
- ▶ Stimulate total renovations
 - Use key moments: combined renovations for building quality and energy, one-stop-shops to promote this.
 - Provide substantial energy loans and premiums for combined renovations (not step-wise)
 - Collective projects (apartments), group purchases and cooperations
- ▶ Innovation to increase efficiency on construction sites
 - digitalisation (digital twin project ongoing), automatisisation, prefab (remote fabrication of building envelopes)
- ▶ Reduce administrative work and involve local firms
 - Simplify rules and energy premiums and loans
 - Energy Houses with trusted trader platform in LIFE project [FOSSTER](#)

Conclusions and topics for discussion

- ▶ Make the urgent need for jobs and skills clear
- ▶ Make the benefits clear: triple win:
 - sustainable local jobs -> payback effect in wider economy/public budget
 - lower energy costs and lower fossil energy imports
 - and a strong reduction in CO₂ emissions from building heating
- ▶ Get departments of Work, Education, Innovation&Industry involved, and also integration, housing...
- ▶ Action plan from both government and sectors
- ▶ What an Energy Agency can do itself:
 - Assess planned policies on labour intensity: shift priorities?!
 - Certification of new skills
 - Promotion of climate jobs



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