

COMPONENT AWARD 2014

Producers of certified passive house windows were invited to make an offer for the windows of a single family home.

41 windows took part in the categories timber, timber-alu, alu and vinyl.

These offers were compared to each other and to a “standard window” according to German legal standard.

THE RESULT:

Passive house windows are profitable for building owners.

Hersteller zertifizierter Passivhaus-Fenster waren eingeladen, ein Angebot für die Fenster eines Einfamilienhauses zu machen.

41 Fenster nahmen in den Kategorien Holz, Holz-Alu, Alu und PVC teil.

Die Angebote wurden untereinander und mit einem “Standard-Fenster” nach EnEV verglichen.

DAS ERGEBNIS:

Passivhaus-Fenster sind profitabel für Bauherren.



Photos: passivhaus-eco®

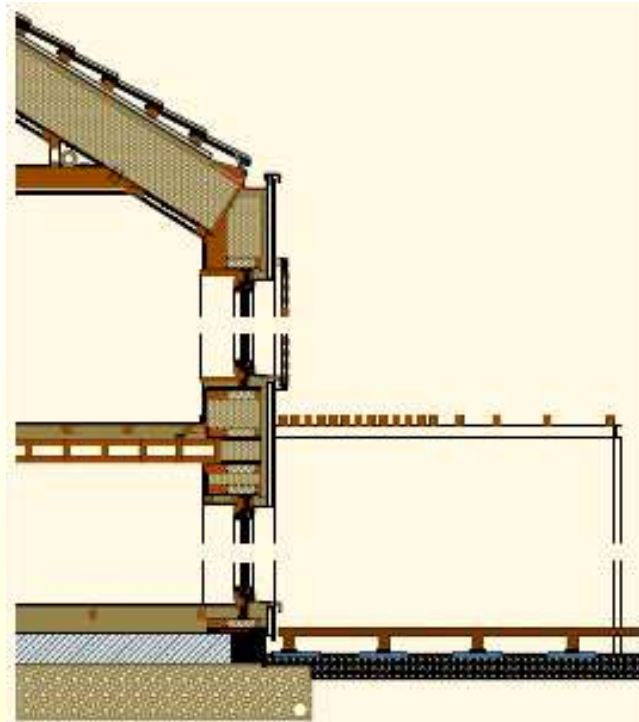
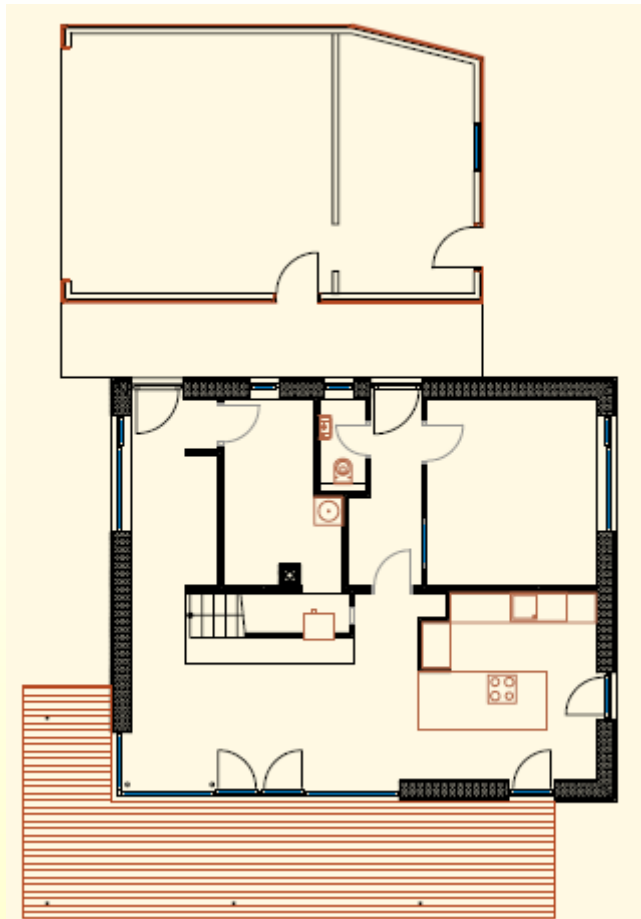


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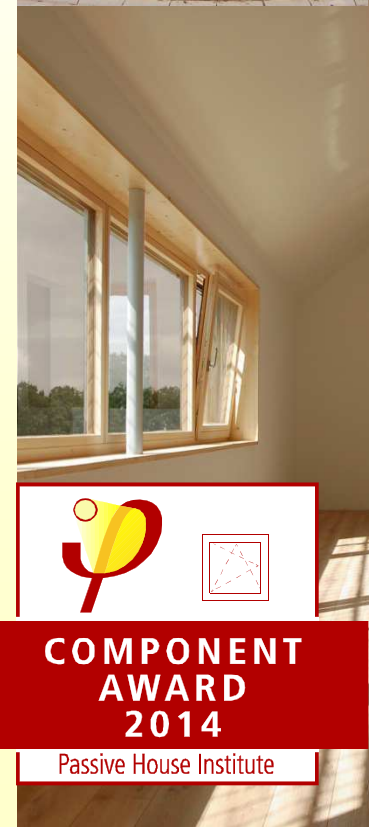
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THE CHALLENGE

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Photos: passivhaus-eco®



www.passivhausprojekte.de: ID 1200

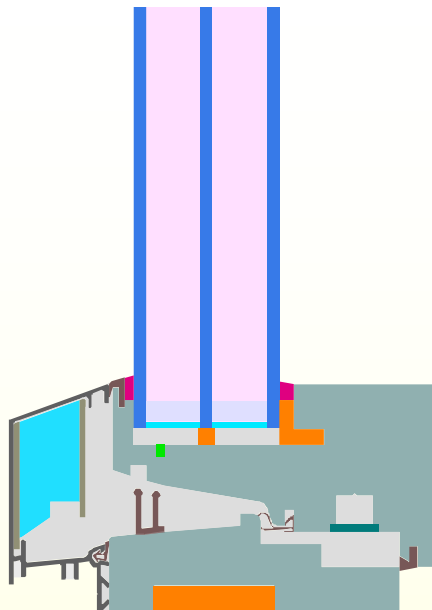
Living area:	155 m ²
Heating demand:	14 kWh/(m ² a)
PE-demand:	61 kWh/(m ² a)
Airtightness (n ₅₀):	0,2 1/h
Architects:	passivhaus-eco



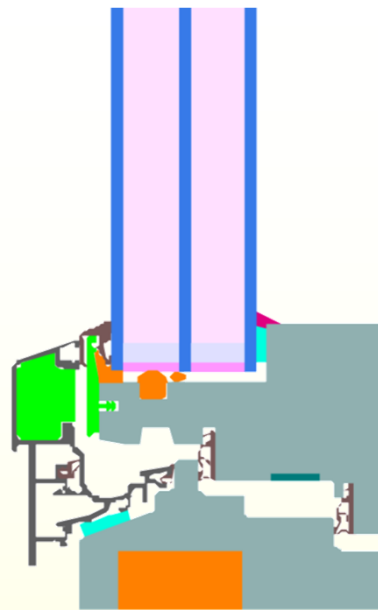
THE REFERENCE BUILDING

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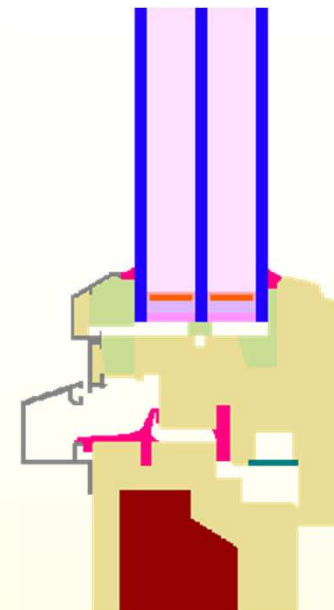
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1 Lorber I pro PHf.
smartwin compact



1 Bieber I OPTIWIN
FUTURA



2 Freisinger I OPTIWIN
Alu2Holz



Photo: passivhaus-eco®

	Prize, Company
	Product
451	Price [€/m ² inst.w]
24%	LCC savings [%]
288	Oil savings [l]

Price: Investment costs for reference building [€/m² ins. Window]. Life-Cycle Cost savings: compared to ref. case [%]. Oil savings: per m² window compared to ref. window (life-cycle 40 a)



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THE WINNERS: Timber-Aluminum (18 participants)

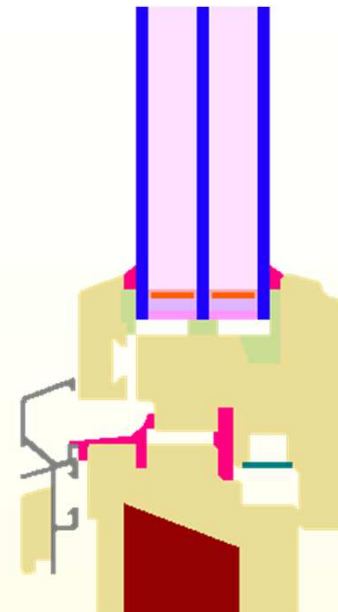
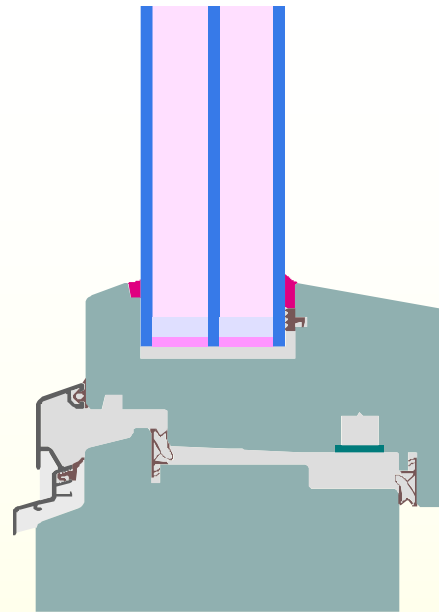
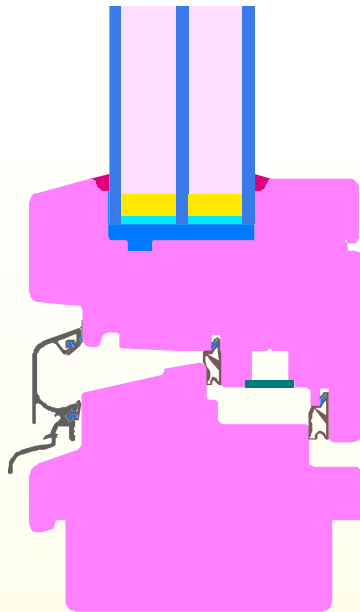


Photo: passivhaus-eco®

1 M SORA

1 Pfeffer Fenster

2 Freisinger I OPTIWIN

Prize, Company

NATURA OPTIMO XLT	RPS	Holz2Holz	Product
384	396	452	Price [€/m ² inst.w]
23%	22%	13%	LCC savings [%]
228	222	201	Oil savings [l]

Price: Investment costs for ref. building [€/m² inst. window incl. VAT]. Life-Cycle Cost savings: compared to ref. case [%]. Oil savings: per m² window compared to ref. window (life-cycle 40 a)



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THE WINNERS: Timber (6 participants)

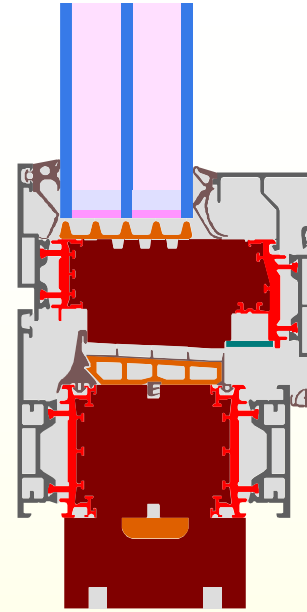
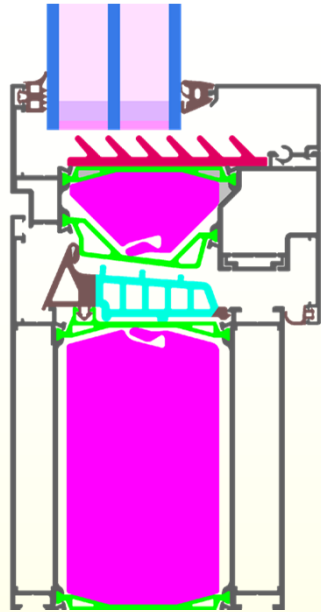


Photo: passivhaus-eco®

1 RAICO

1 PURAL

Prize, Company

FRAME 90 WI

eco90

Product

492

540

Price [€/m²inst.w]

14%

12%

LCC savings [%]

185

230

Oil savings [l]

Price: Investment costs for ref. building [€/m² inst. window incl. VAT]. Life-Cycle Cost savings: compared to ref. case [%]. Oil savings: per m² window compared to ref. window (life-cycle 40 a)



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THE WINNERS: Aluminum (3 participants)

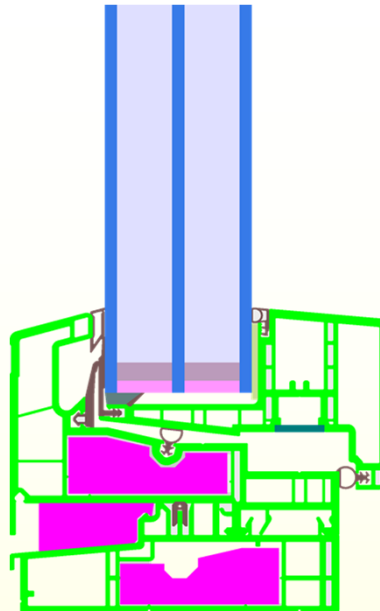


Photo: passivhaus-eco®

1 Hilzinger

Prize, Company

VADB 550

Product

224

Price [€/m²inst.w]

37%

LCC savings [%]

257

Oil savings [l]

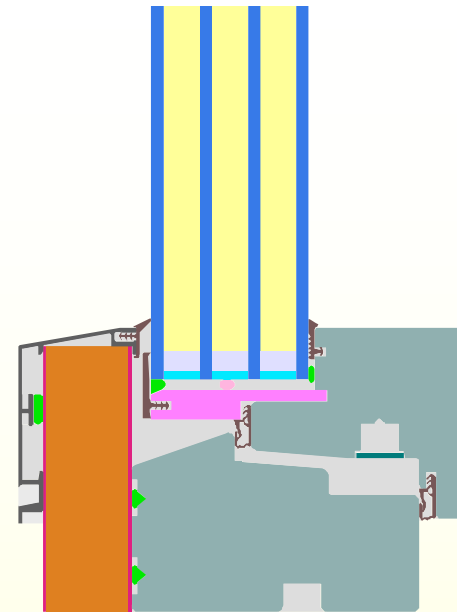
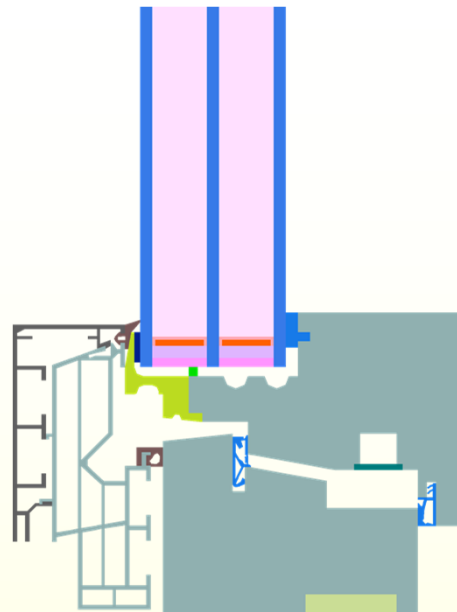
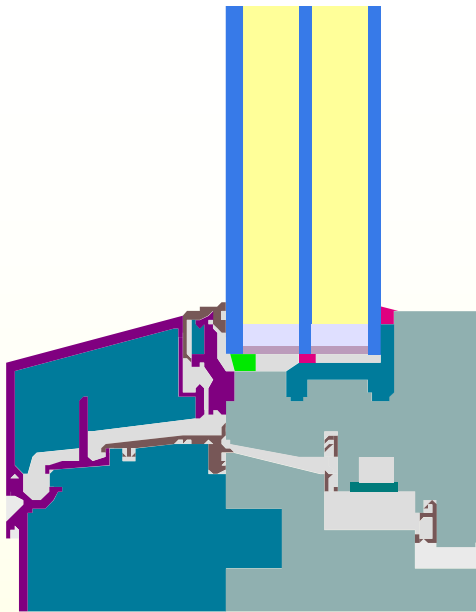
Price: Investment costs for ref. building [€/m² inst. window incl. VAT]. Life-Cycle Cost savings: compared to ref. case [%]. Oil savings: per m² window compared to ref. window (life-cycle 40 a)



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THE WINNERS: PVC (3 participants)



Timber-GRP, dHPt	Glazing, Wiegand	U-value, Pazen	Prize, Company
Delta Plus cold climate	DWplus	ENERsign arctis*	Product
353	543	599	Price [€/m ² inst.w]
27%	12%	8%	LCC savings [%]
225	237	276	Oil savings [l]

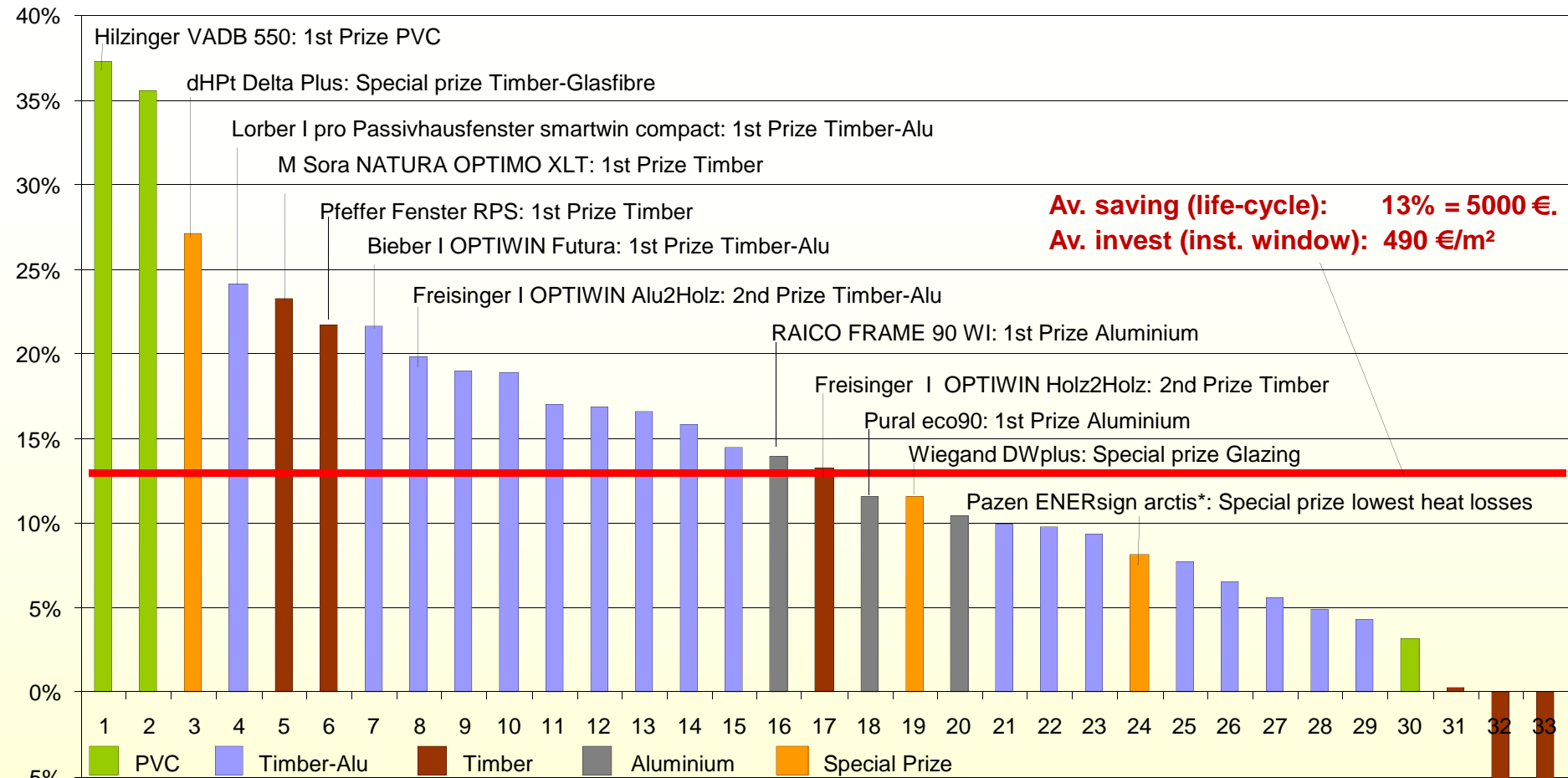
Price: Investment costs for ref. building [€/m² inst. window incl. VAT]. Life-Cycle Cost savings: compared to ref. case [%]. Oil savings: per m² window compared to ref. window (life-cycle 40 a)



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SPECIAL PRIZES



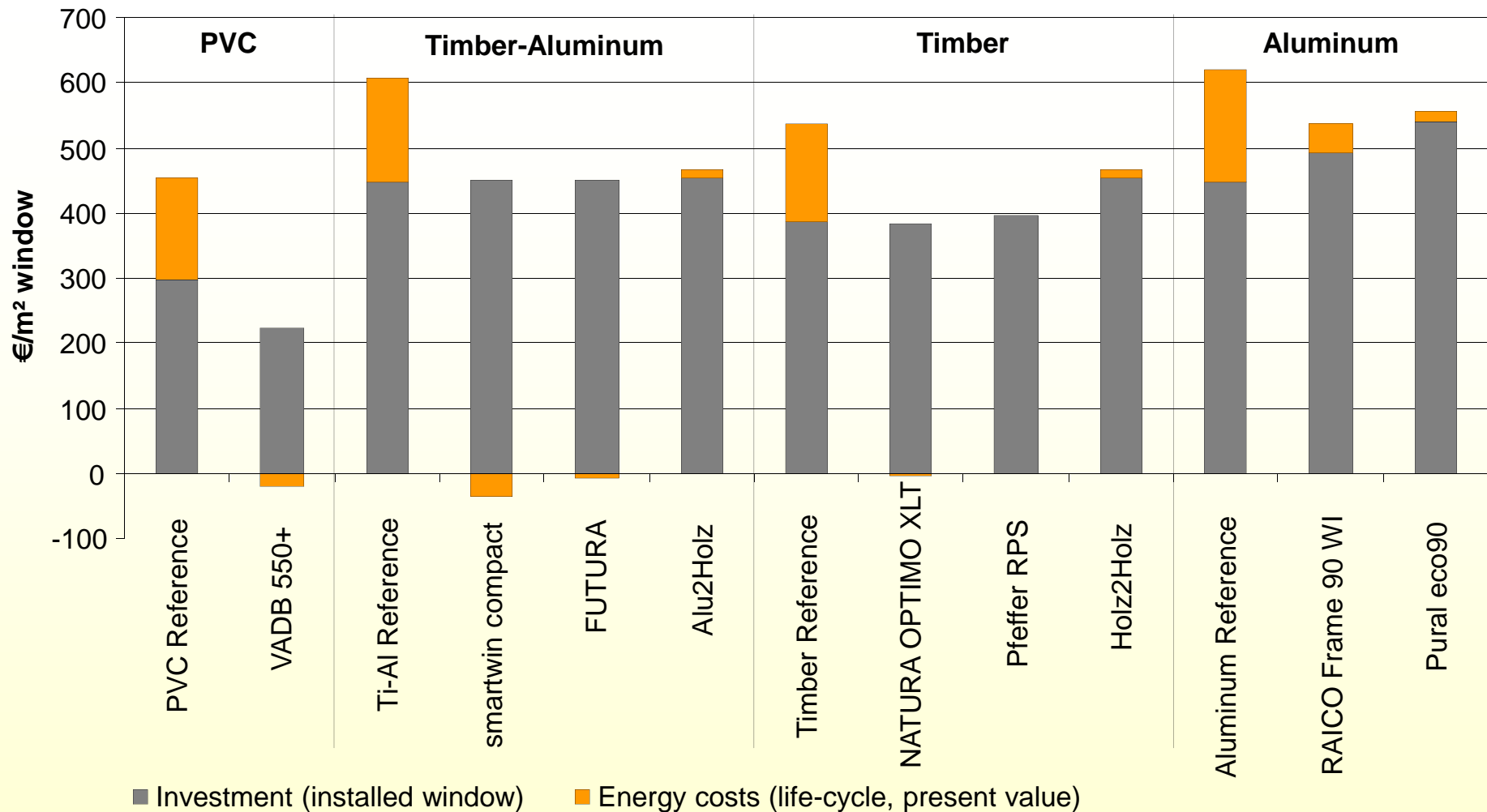
Passive house windows are profitable for building owners
Passivhaus-Fenster sind profitabel für Bauherren



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RESULTS: Savings compared to reference



Investment and energy costs | Investitions- und Energiekosten

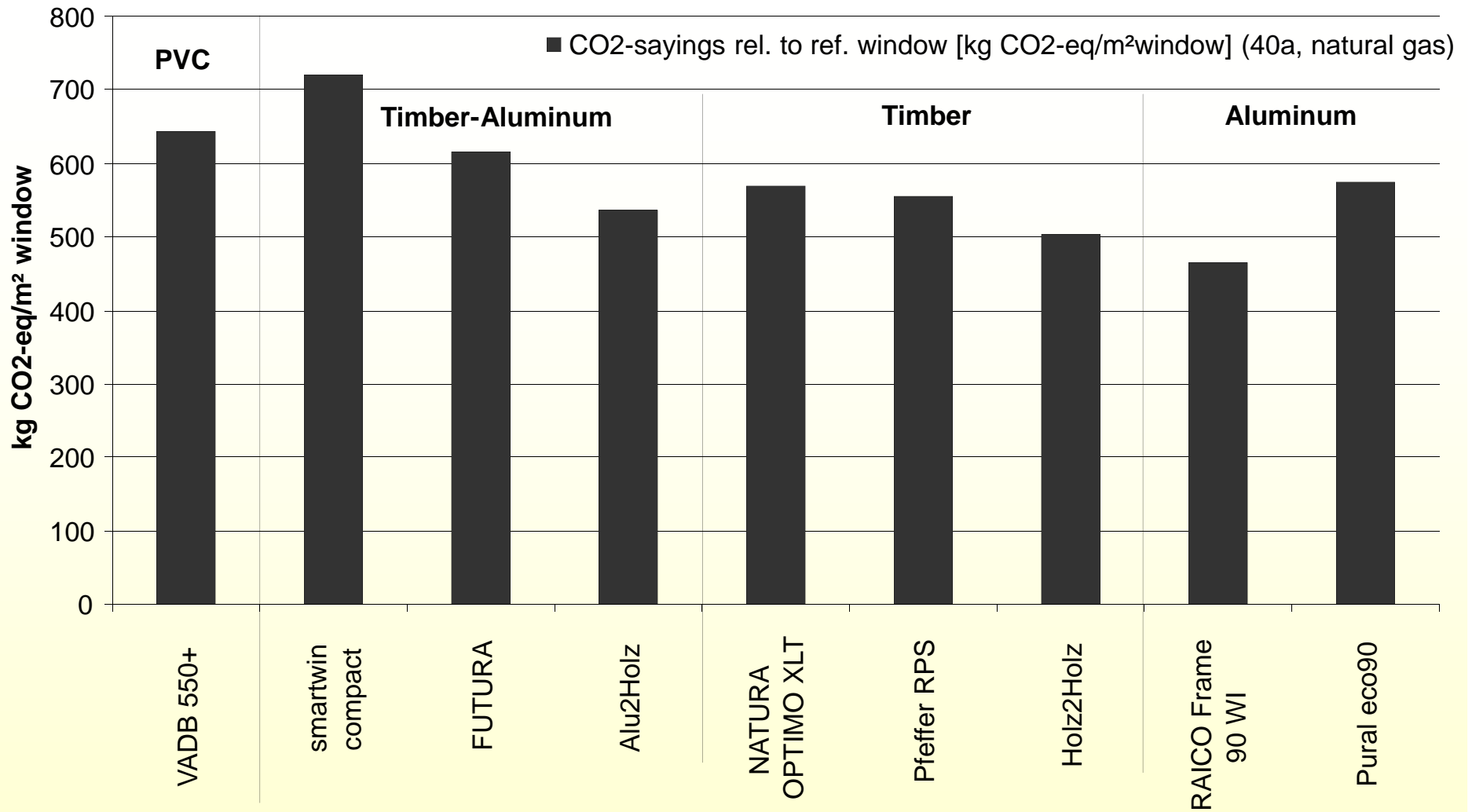
No energy costs for passive house windows | Keine Energiekosten für Passivhausfenster



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RESULTS: The winners

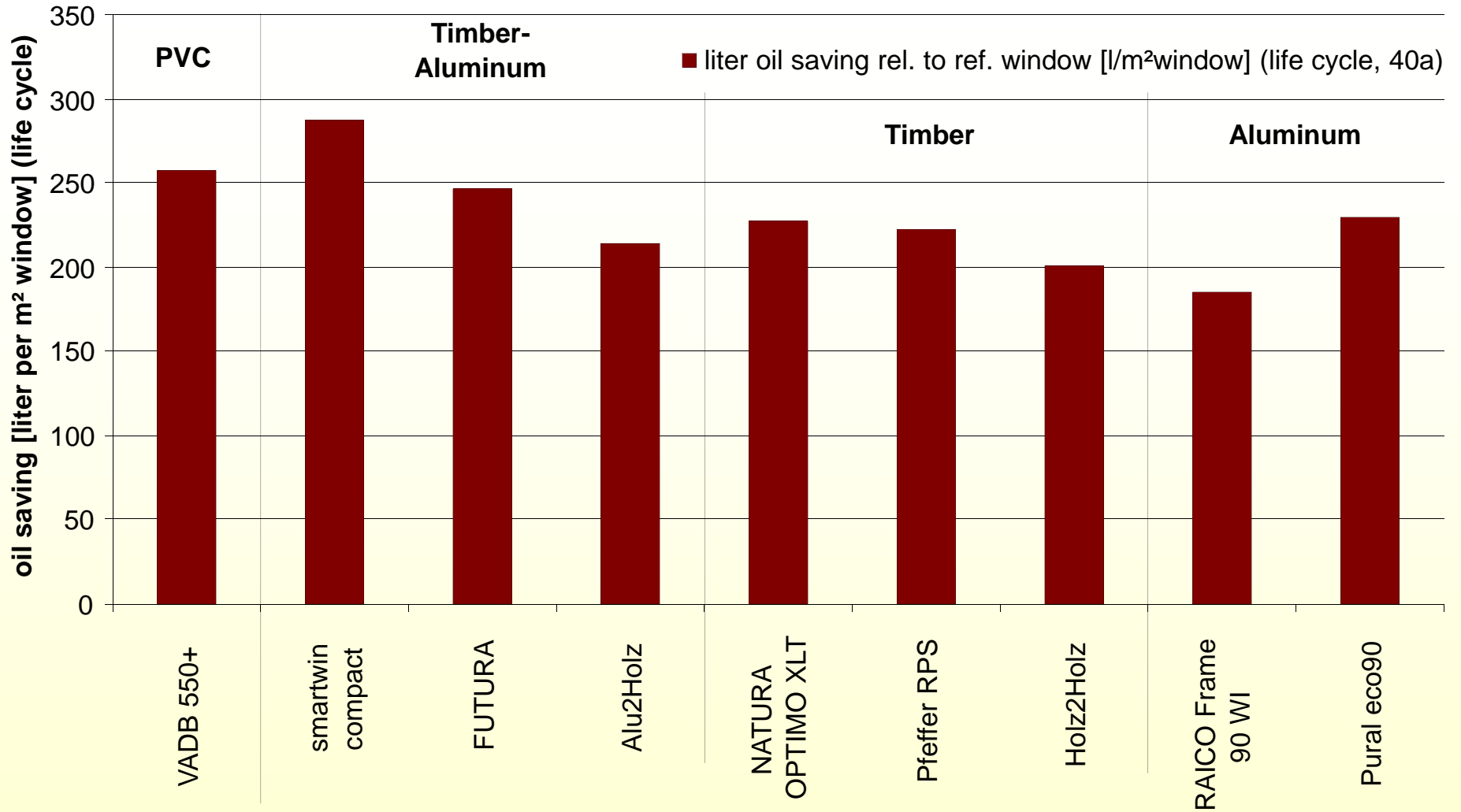


RESULTS: The winners – CO₂ savings



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RESULTS: The winners – fuel savings



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