Trias Energetica
the Dutch solution to deal with NZEB on the political level

Carl-peter Goossen
1. Reduce energy consumption

2. Use renewable energy sources

3. Using fossil fuels as efficiently as possible
1. Reduce energy consumption

2. Use renewable energy sources

3. Using fossil fuels as efficiently as possible
Passive house

1. Reduce energy consumption
2. Use renewable energy sources
3. Use fossil fuels as efficiently as possible
1. Reduce energy consumption

Passive house

2. Use renewable energy sources

Pellet stove + Sun energy

3. Using fossil fuels as efficiently as possible

energy consumption

INTEGRATED DESIGN Synergy as Building Concept
Trias Energetica

Energy Class

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INTEGRATED DESIGN Synergy as Building Concept
Energy Class

Trias Energetica

EPG Calculation
NEN 7120

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nZEB Calculation as alternative

EN 15603:2008
EN 15603:2016
INTEGRATED DESIGN Synergy as Building Concept

Author: DNA in de bouw
Renovation
Scrum: 15-minuten daily meeting
Team members respond to basics.
1) What did you do since last Scrum meeting?
2) Do you have any obstacles?
3) What will you do before next Scrum meeting?
INTEGRATED DESIGN Synergy as Building Concept

Author: DNA in de bouw
Think in energy concepts

- Take advantage of sun and wind
- Exploited ventilation air
- Reduce heat optimize airtightness
- Cooling capacity ground

Comfort

Co-funded by the Intelligent Energy Europe Programme of the European Union
Passivehouse

Thermal comfort

Very good indoor air quality

Extremely low energy consumption

climate protection
Dwelling
1961

Den Bosch
Netherlands
DNA in de bouw INTEGRATED DESIGN Synergy as Building Concept
Façade insulation with stone strips
Old Central heating boiler
tankless electric water heater

Electric heater
800 Watt

Heat recover ventilation
INTEGRATED DESIGN Synergy as Building Concept

Author: DNA in de bouw
Sustainable construction are expensive - business as usual is priceless
Thank You!