The cooling initiative

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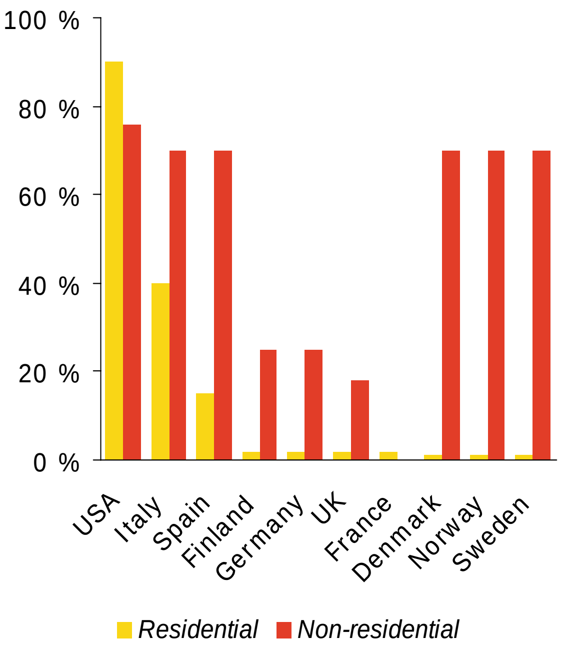
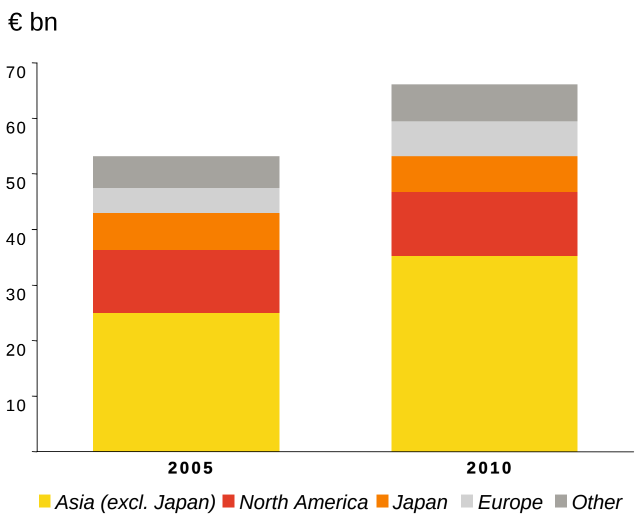
Cooling industry is essentially a commercial, high-rise market

Penetration of cooling systems in residential and non-residential new-build



Worldwide, cooling is a EUR 50bn business

Market value of cooling



Note: Includes room air conditioners and packaged air conditioners.

Increasing comfort and energy-saving demands drive radiant cooling growth

Growing demand for cooling

Comfort
– Germany: legislative requirements on indoor temperature
– Recognition of productivity improvement from indoor climate control
– Penetration of air conditioning in cars

Increasing indoor heat loads
– Use of glass in architecture, more machines per square meter

Increasing radiant cooling penetration

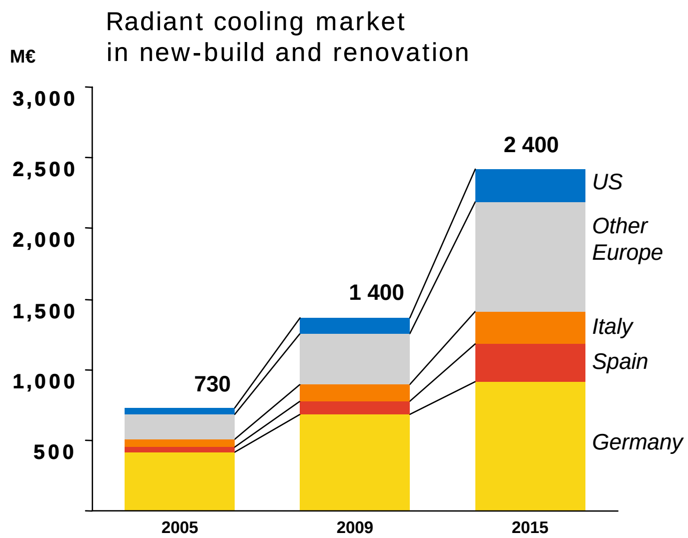
Energy efficiency
– EU directive on the energy performance of buildings (2002/91/EC)
– Tenants increasingly require energy efficient space
– Rising energy costs

Awareness of the advantages of radiant cooling
– comfort, design, possibility to combine UFH and radiant cooling

Construction market growth

– Construction activity growth expected to have only minor impact for radiant cooling growth
– Increasing importance of the renovation market

The radiant cooling market has strong growth expectations



Radiant share of cooled space in Europe	4.0%	7.0%	12.0%

Expected Market Growth
- Europe: healthy 15+ per cent growth expected
- US: smaller market but similar growth expectation as in Europe

Other Europe includes the Nordics, France, UK, Netherlands, Switzerland, and Belgium

Radiant cooling technologies

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Concrete core activation

–Pipes installed in the concrete core to reduce peak heat loads in buildings

–Utilises cooler temperatures for nighttime loading

Underfloor cooling

–Pipes installed in floor, can be combined with e.g. air conditioning to boost impact

–Typically combined with underfloor heating

Chilled elements

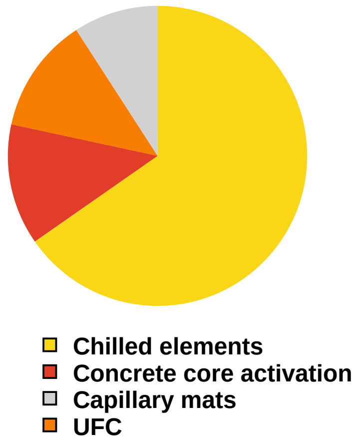
–Installed in suspended ceilings or partition walls

Capillary mats

–Installed in wall or ceiling plaster or suspended ceiling panels

–High cooling power, can also be used to heat

Chilled elements the most common technology



Radiant cooling technologies have each a typical application area

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Chilled elements

- Offices, commercial buildings
- Both new-build and renovation

Concrete core activation

- Offices, commercial buildings
- New-build only

Underfloor cooling

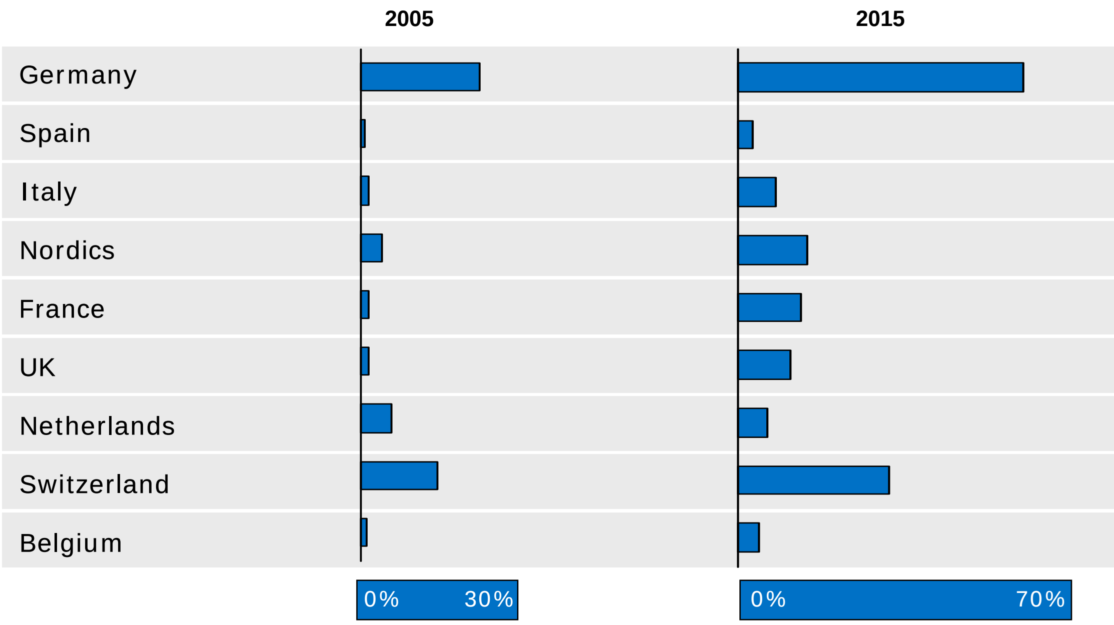
- Offices, commercial and residential buildings
- Mainly new-build

Capillary mats

- Offices, commercial and residential buildings
- Both new-build and renovation

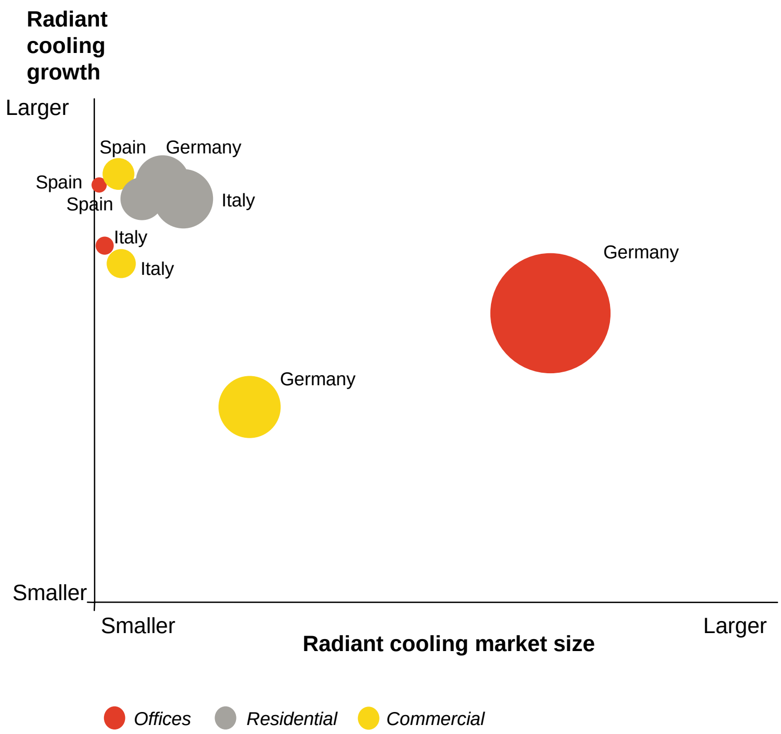
Radiant cooling is most established in Germany

Average radiant cooling penetration in new-build in Europe



Based on area, represents share of total new cooled space

Radiant cooling growth by sector in key European countries



Priority sectors by market

Germany

Offices and commercial
- Most established and largest segments
- High acceptance of radiant cooling

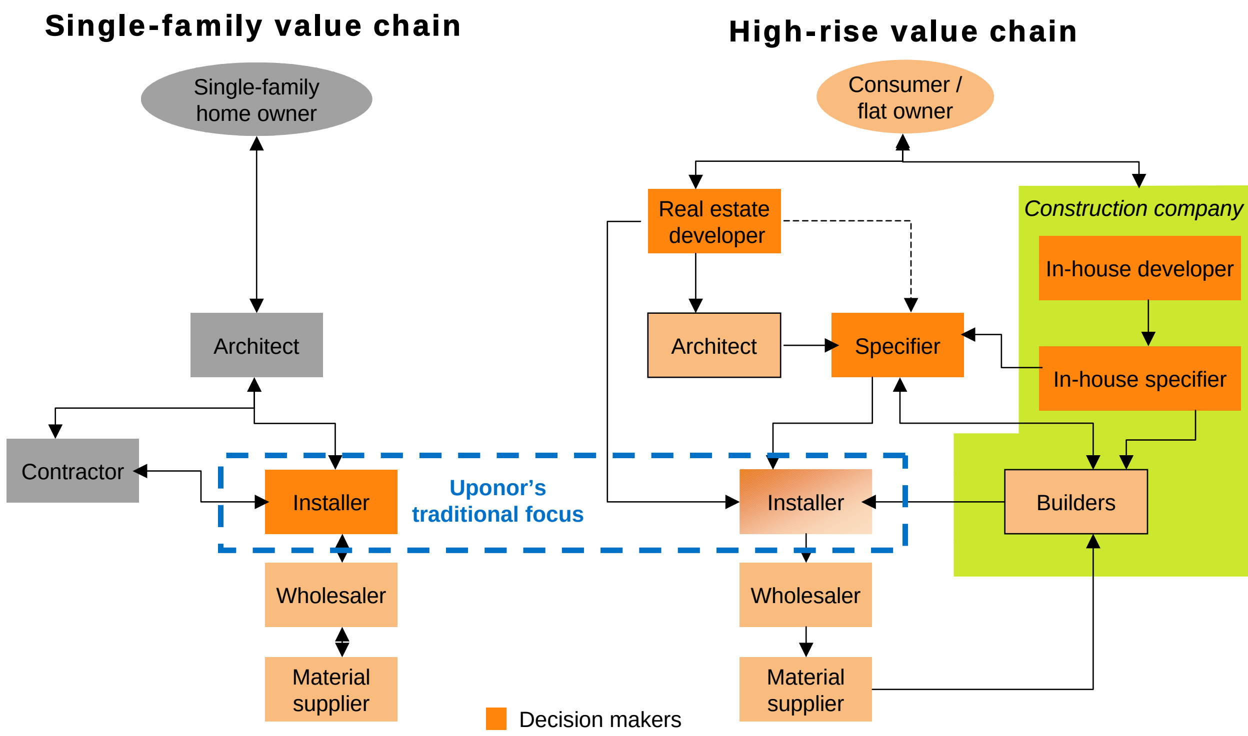
Residential
- Acceptance of radiant heating
- Potential for combined UFH/UFC offering

Spain and Italy

Offices and commercial
- High expected growth and growing acceptance of radiant cooling

Residential
- High acceptance of radiant cooling
- Potential for combined UFC/UFH offering

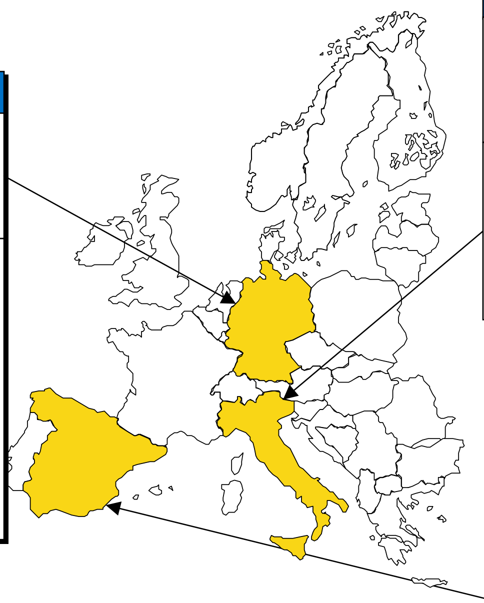
Cooling business in the high-rise segment has new decision makers



The fragmented radiant cooling market engages a number of actors

Radiant cooling competitive arena in key European markets

Germany	
Prevalent radiant cooling technologies	• Chilled elements • Concrete core activation
Key actors	• Zent Frenger • Trox • Rehau • Roth + number of small players



Italy	
Prevalent radiant cooling technologies	• Underfloor cooling • Chilled elements
Key actors	• FCC • RDZ • Giacomini • Rehau

Spain	
Prevalent radiant cooling technologies	• Underfloor cooling • Chilled elements
Key actors	• Trox • Movinord • Giacomini • Rehau

Uponor's current position in radiant cooling

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- Market sectors addressed
  - office and commercial building segments in the Central Europe
  - residential segments in Europe -WES
- Offering
  - Concrete core activation and UFH cooling
  - Capillary mats
  - Chilled panels
- Emerging business

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Uponor's cooling strategy addresses two primary market segments

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Key market segments

Large projects

- Small but growing position in high-rise heating
- A limited position in non-residential cooling
- Product and service offering in high-rise more similar to that of the single-family home segment
- Similarities across high-rise and large non-residential segments in terms of buying process, decision makers, and key decision criteria

Single-family homes

- Strong position in single-family heating and plumbing
- Similarities between heating and cooling segments in terms of products, buying process, decision makers, and key decision criteria

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Synergies exist between the high-rise and cooling initiatives

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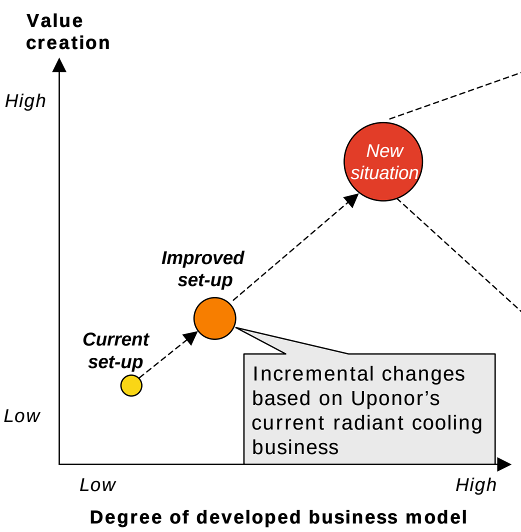
Development of Uponor's radiant cooling business



Key value-creating activities

1. Join forces with the high-rise initiative
2. Explore the combined UFH / UFC opportunity
3. Focus on developing the sales & marketing approach
4. Develop the offering

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Uponor's targets in cooling business

- Make radiant cooling one of our core applications by 2009
- Within 10 years, radiant cooling may play a similar role as UFH today in our markets

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