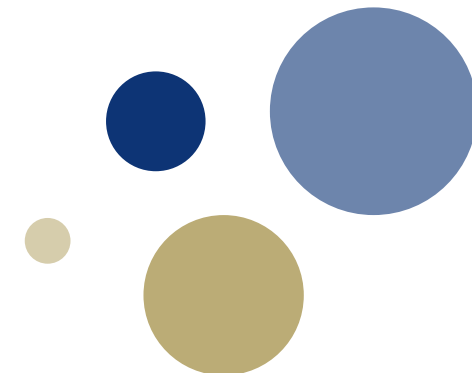




TALL TIMBER FACADES
COST EFFICIENT AND RESILIENT ENVELOPE



Nasjonalt Fuktseminar 2017

Assessing mould risk in timber walls

3 years research in 10 minutes

Klodian Gradeci
klodian.gradeci@ntnu.no



TallTimberFaçades Project



Phd as part of TallTimberFaçades Project (<http://fungi.tallfacades.eu/>)

Norway 	Germany 	Sweden 	France 
NTNU	TU München	SP	FCBA
SINTEF	Eternit AG	Martinsons	
Overhalla As	Rubner GmbH	Moelven AB	
Isola As			

- Risk-façade design tool (RiFa-tool)
- Guidelines and catalogue of timber building envelopes
- Optimization of the façade construction

What we want to avoid?

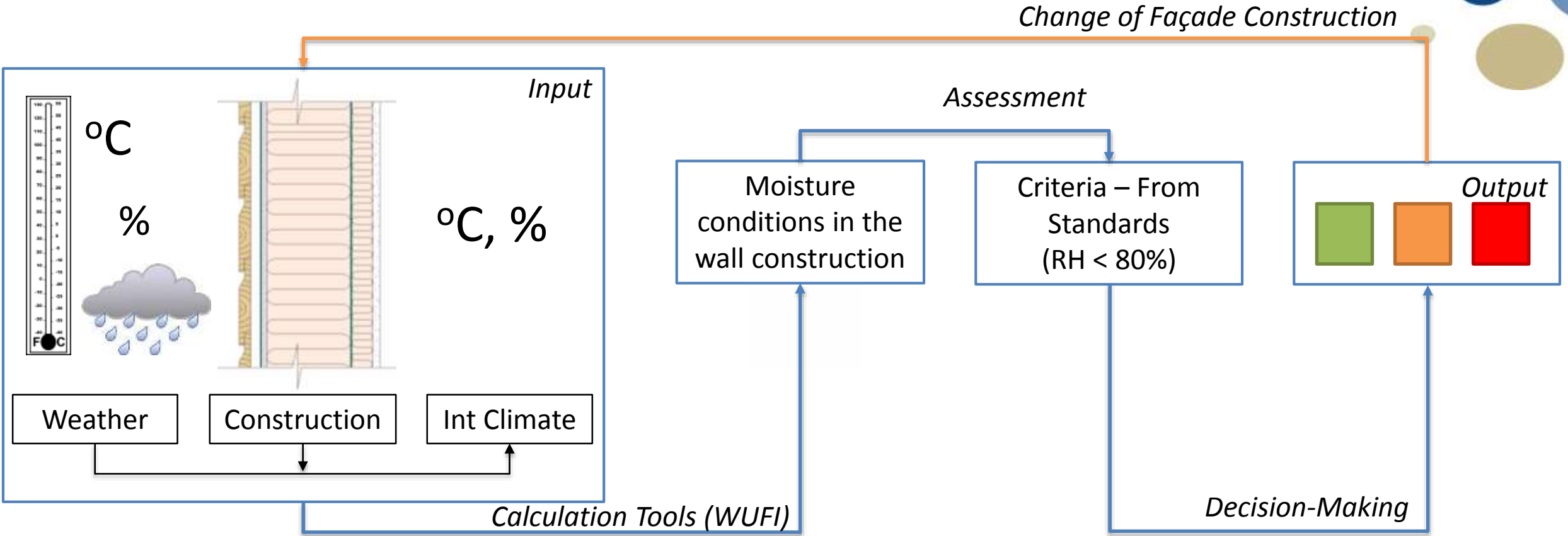


<http://www.viivilla.no/bygging/fukt-og-drenering/boligens-fem-verste-fiender/>

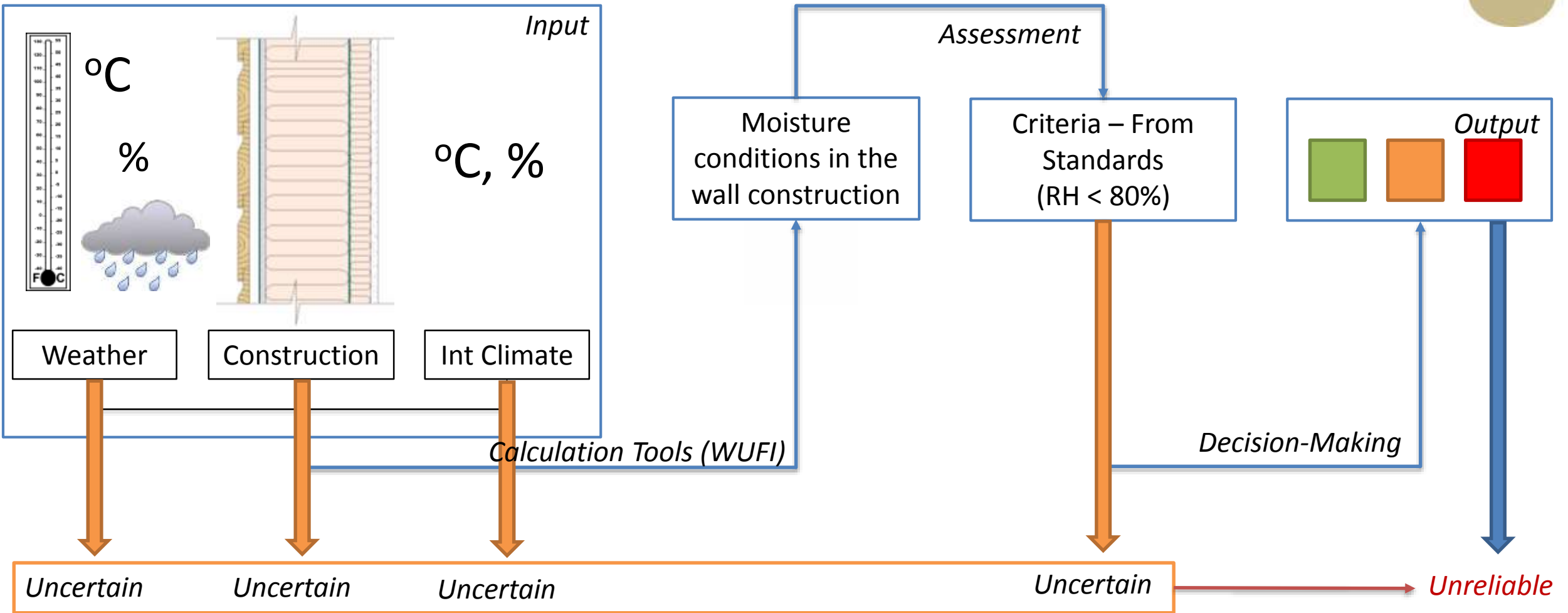


<http://www.expressandstar.com/news/2014/12/08/wolverhampton-couple-with-baby-complain-over-mould-filled-house/>

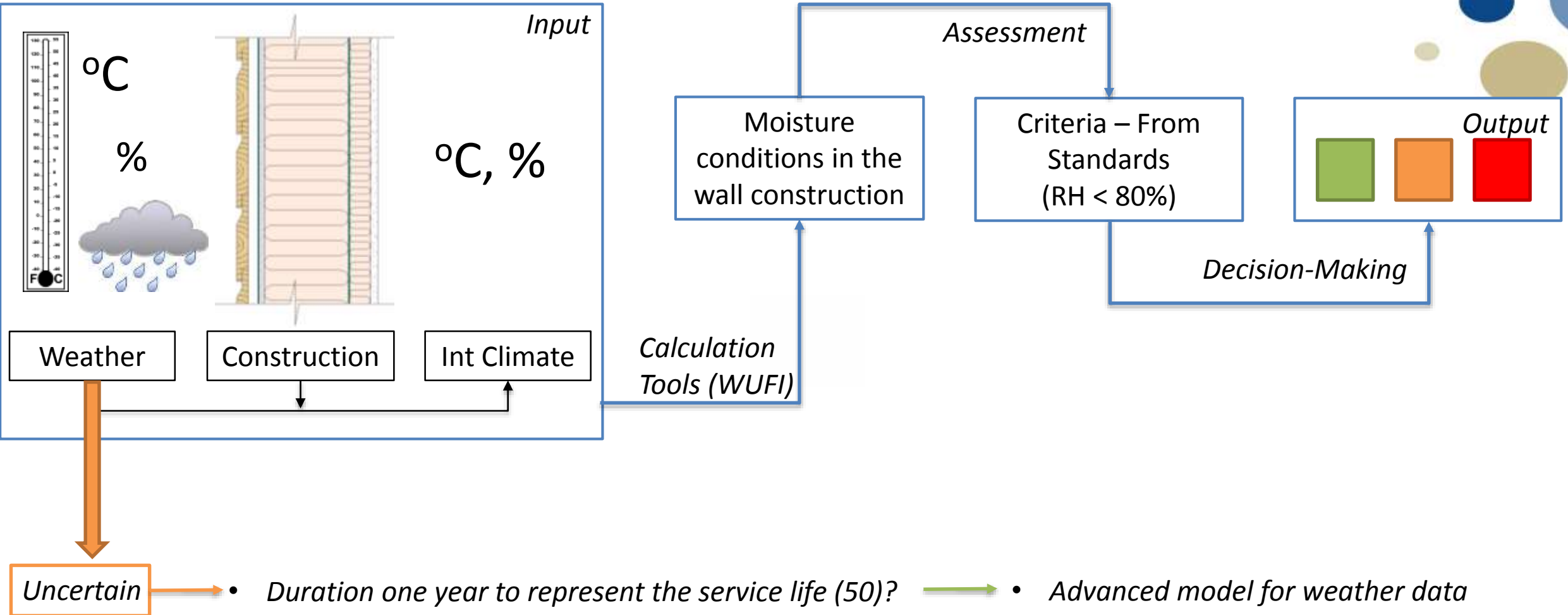
Conventional Design Approach – How do we try to avoid it?



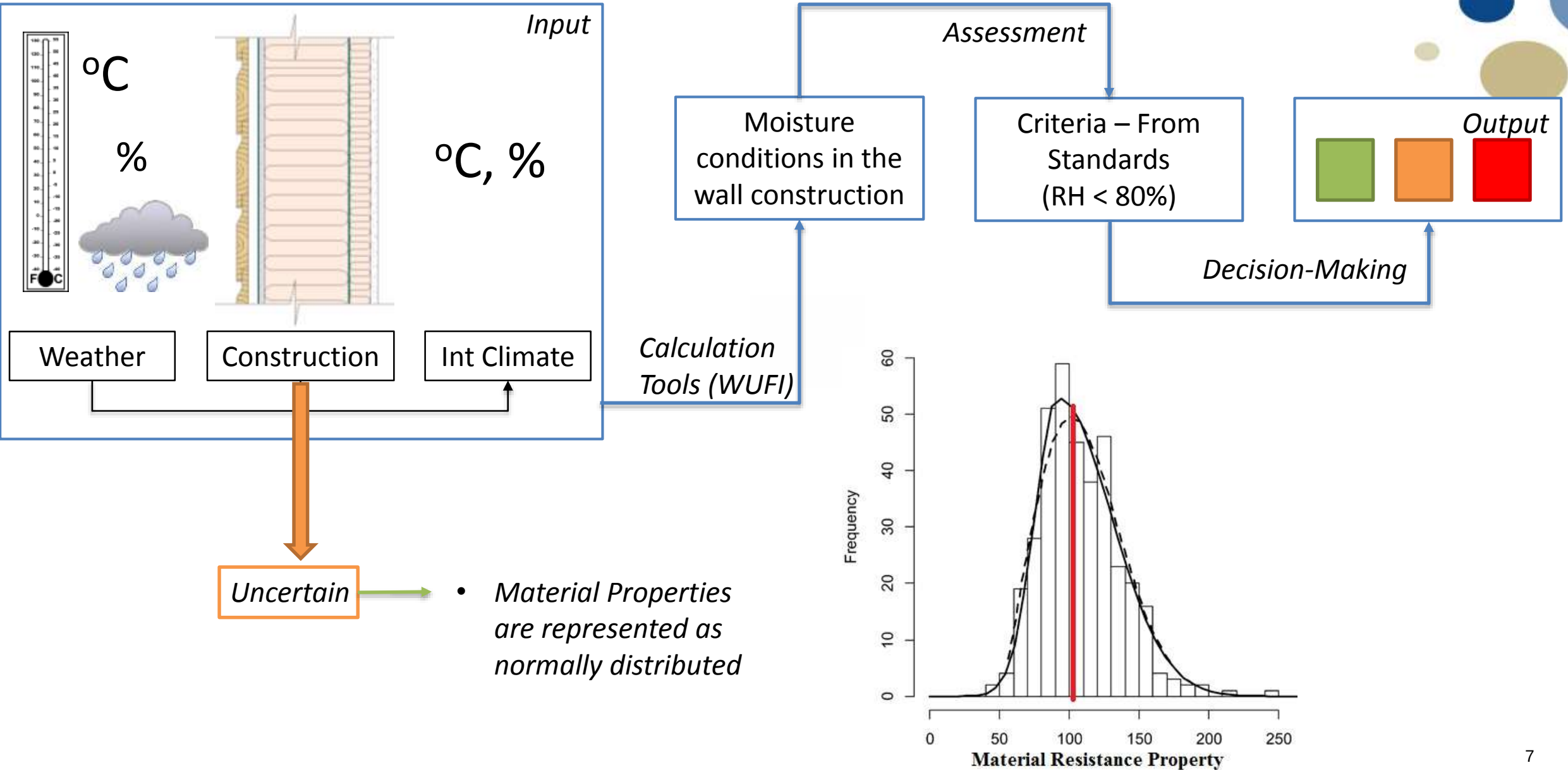
Conventional Design Approach – What can it be improved?



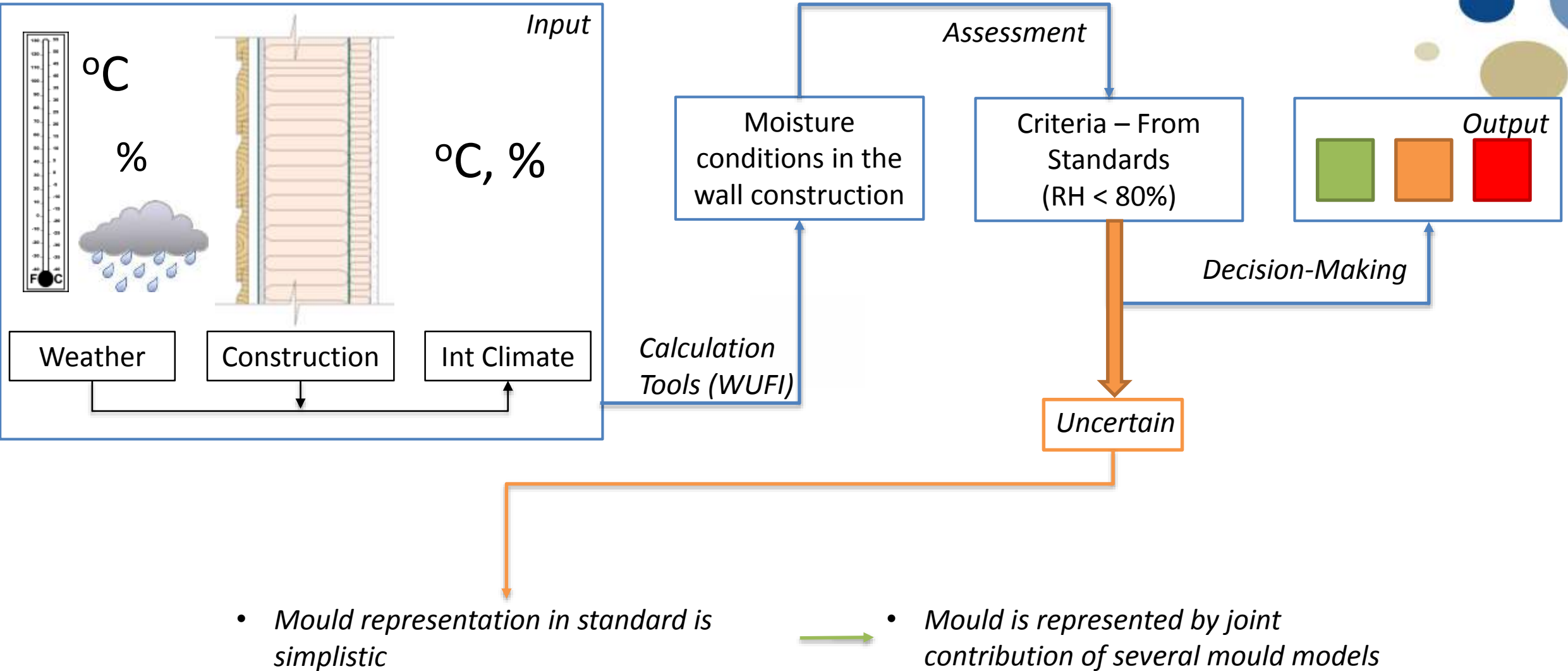
Conventional Design Approach – How to improve it?



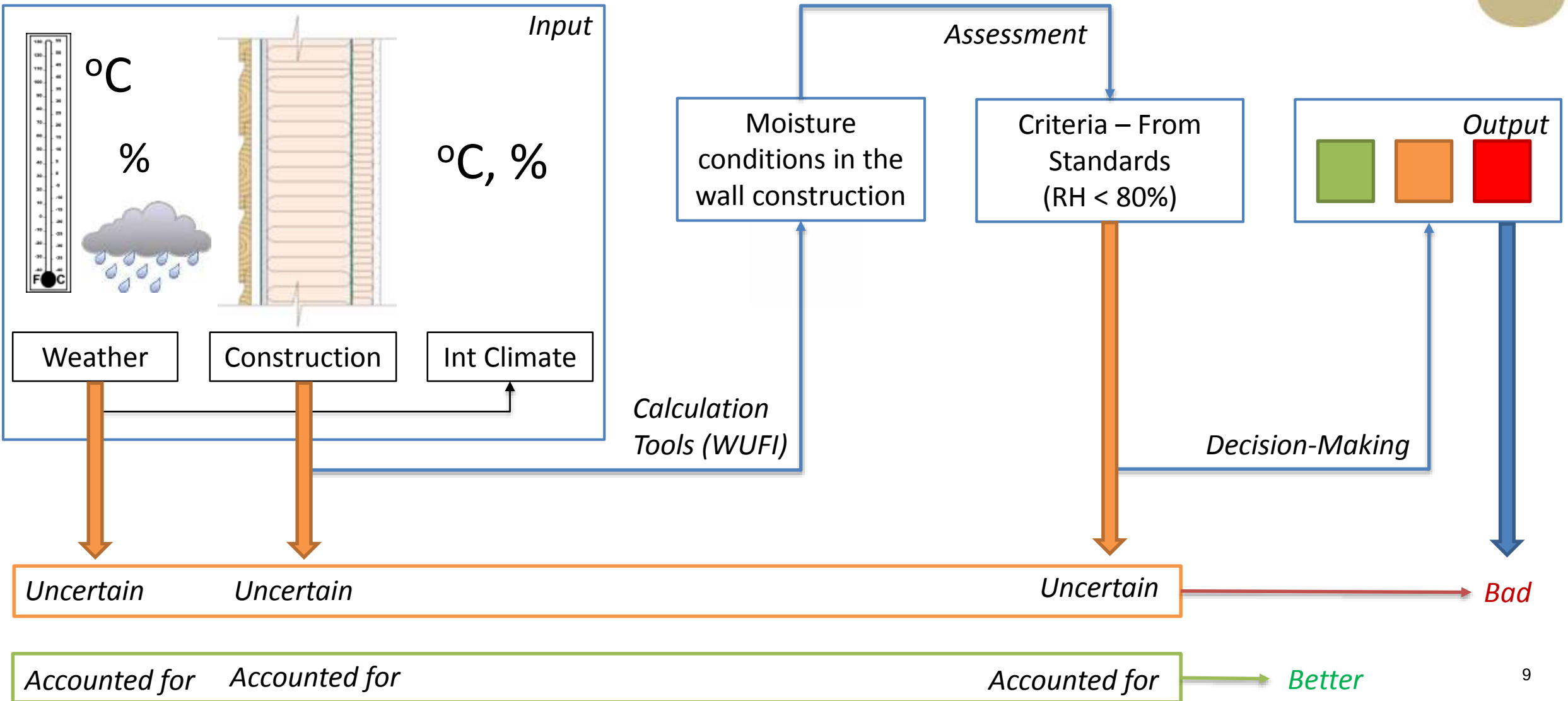
Conventional Design Approach – How to improve it?



Conventional Design Approach – How to improve it?

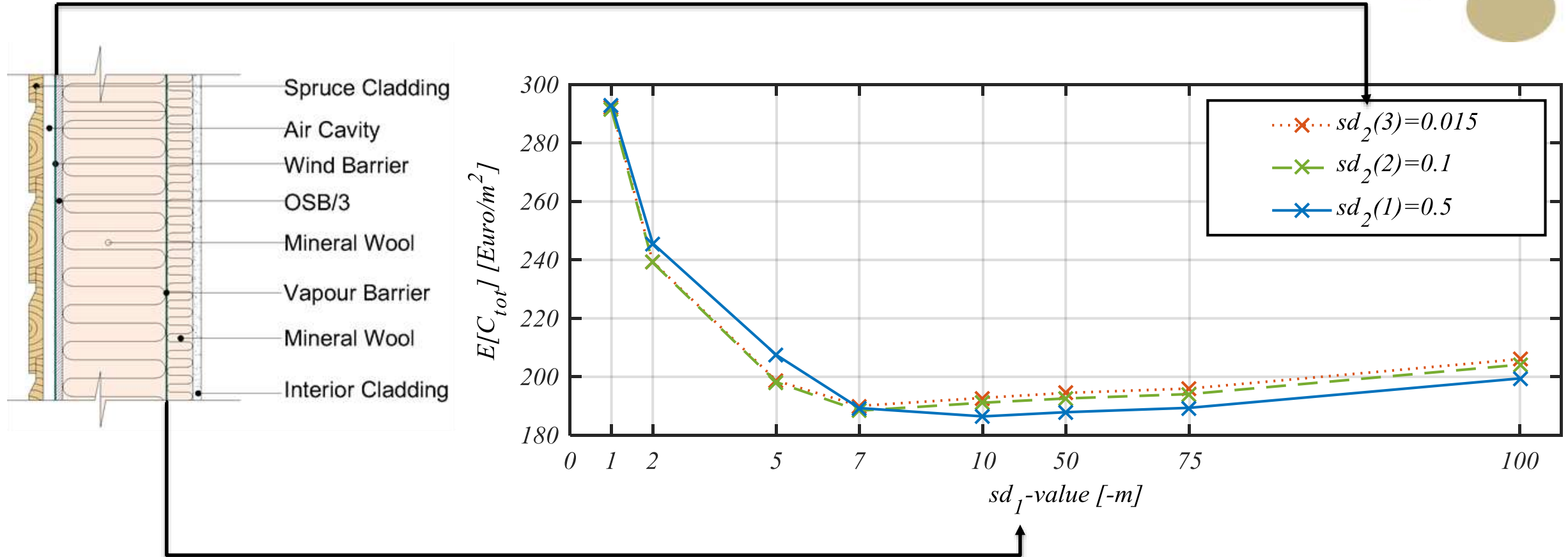


Proposed Probabilistic Design Approach – What does improve?



Proposed Probabilistic Design Approach – How to use it?

Cost-Benefit and Optimization Analysis



Total expected costs as a function of the wind barrier and vapour retarder



Thank you for your attention!

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