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Innovation Strategies for Clean Energy Technologies

- The work of Swedish Energy Agency

The scene

- The climate change effect all societies – one way or another.
- 70 % of the global GHG emissions are energy related (in Sweden 75 %).
- Urbanisation is fast - 66 % of the global population will live in cities by 2050.
- "Electrification is coming" - almost a billion people still lack electricity in their homes.



Energy Policy Targets for Sweden

100 % renewable
electricity 2040

No net emissions of
GHG 2045

50 % more efficient
energy use 2030
than in 2005

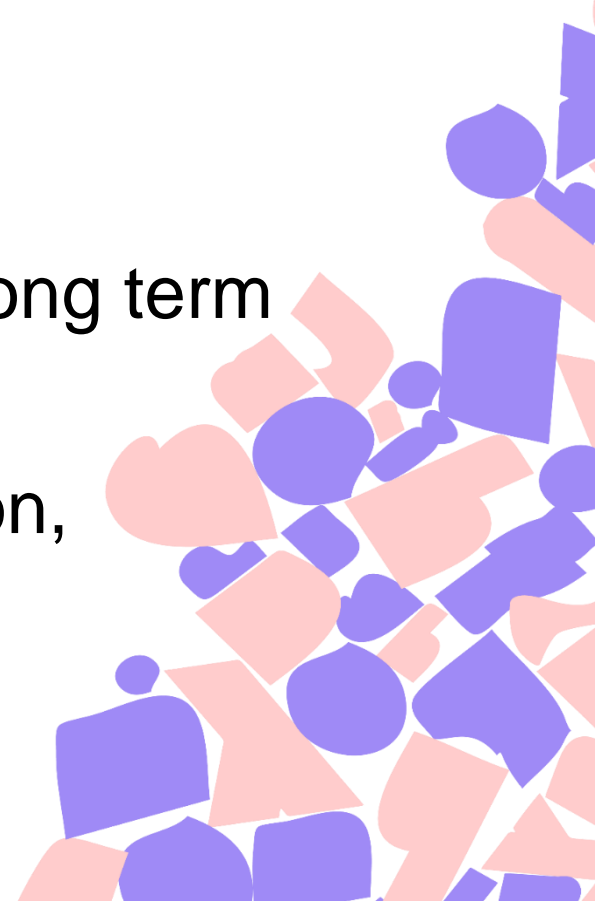


The Fundament

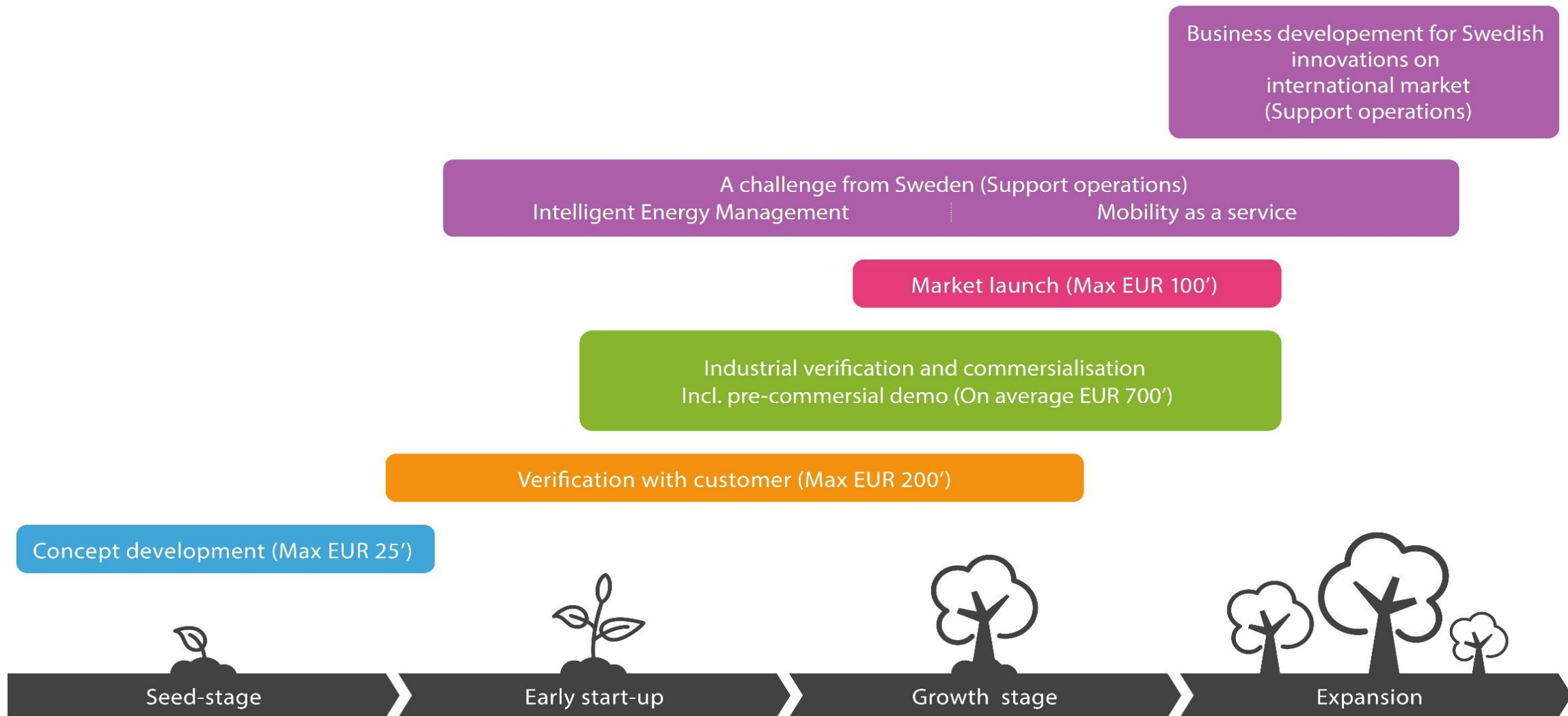
Research, Innovation and "making a difference"

The SEA has:

- Annual budget app. 160 million €
- Equal amount of industrial co-funding (tot. 320 m€)
- ~ 90 programmes and 1200 projects running
- Scientific advice boards, systematic evaluation and long term governing thematic strategies
- Closed the gaps from basic research to demonstration, implementation and commercialisation
- Increased cooperation/co-creation with others



The Swedish Energy Agency's close-to-the-market support programs for innovations



Our "Energy Transition Portfolio"

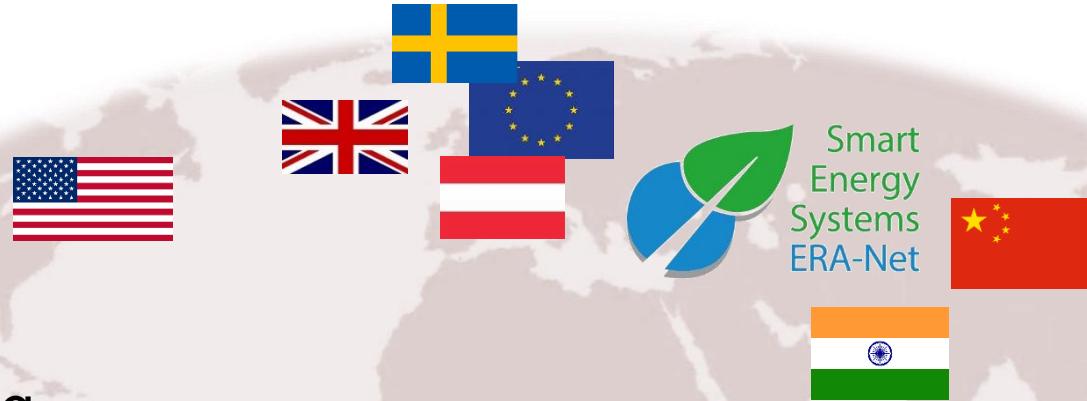
Some numbers:

- 181 companies in the portfolio
- Total investment app. 97 m€, co-investment app. 1,1 billion€
- 23 companies market listed with a value of 1,5 billion€
- 50 of the innovations estimated having potential to reduce 14 times Sweden's total CO2 emissions (according to the quantitative methodology in the Avoided Emission Framework under MI).

Companies	Value (MSEK)
PowerCell Sweden	4657
Climeon B	4239
Minesto	2139
Midsummer	957
Azelio	702
Cortus Energy (Fol)	588
Greater Than	535
I-Tech	527
SaltX Technology	379
Heliospectra	283
Arc Aroma Pure	265
Ferroamp	254
Absolicon	237
ChromoGenics	223
Insplorion	193
Svenska Aerogel	173
Avtech Sweden	172
Clean Motion	63
Hybricon	41
Raybased	39
Enrad	24
Acosense	20
Mantex	17
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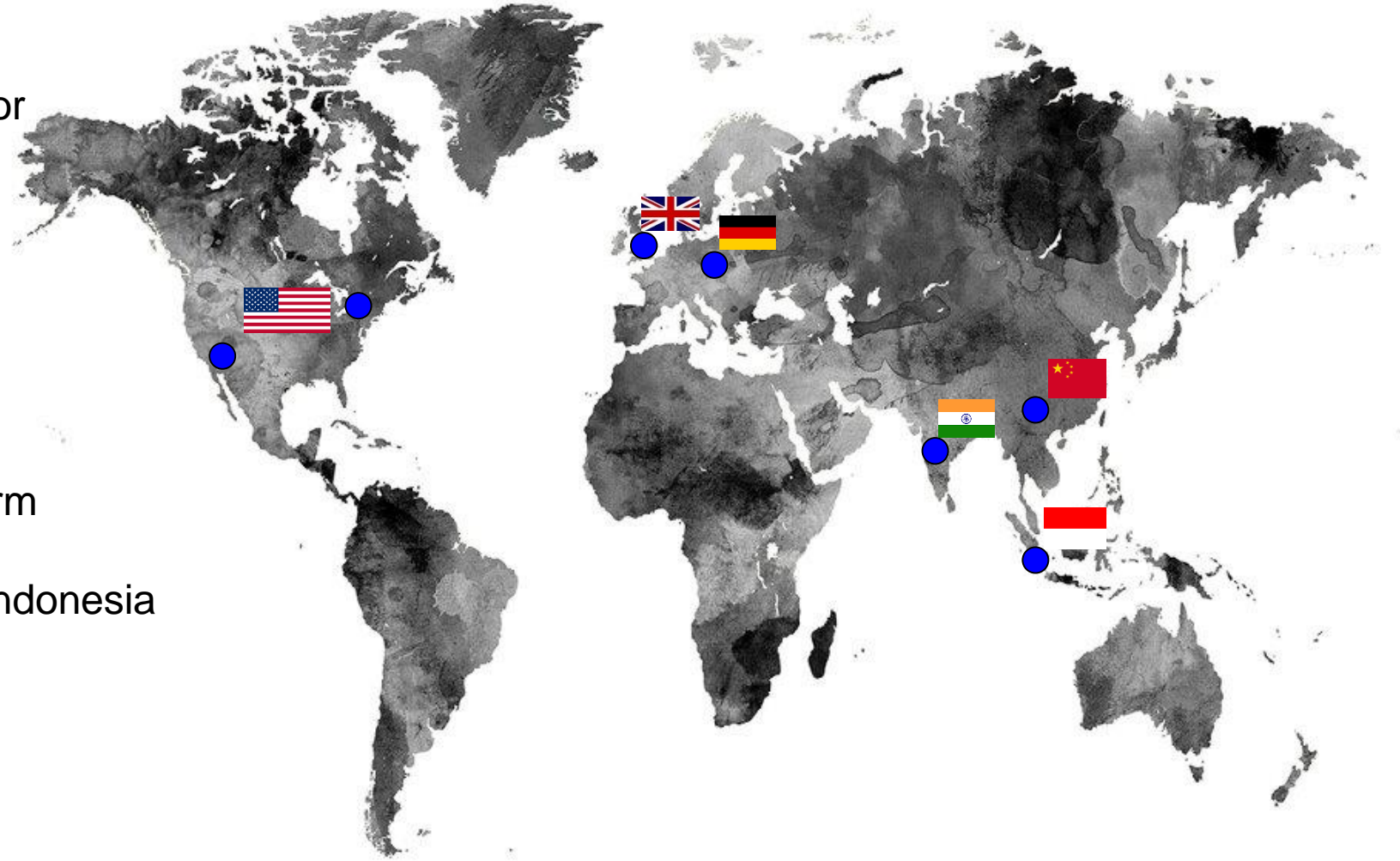
– a huge opportunity

- Enhance multinational cooperation between public funders, business development, commercialisation and innovation procurement, with a focus on investors and enablers
- Global platforms for public R&D - **MI call pilot 2019** by ERA-NET SES
- Develop joint dynamic frameworks e.g. **Avoided Emission Frameworks** to help guide the transition to a 1.5° C Compatible Solution Framework
- **Multinational Soft-landing programs**



Our international accelerator programs

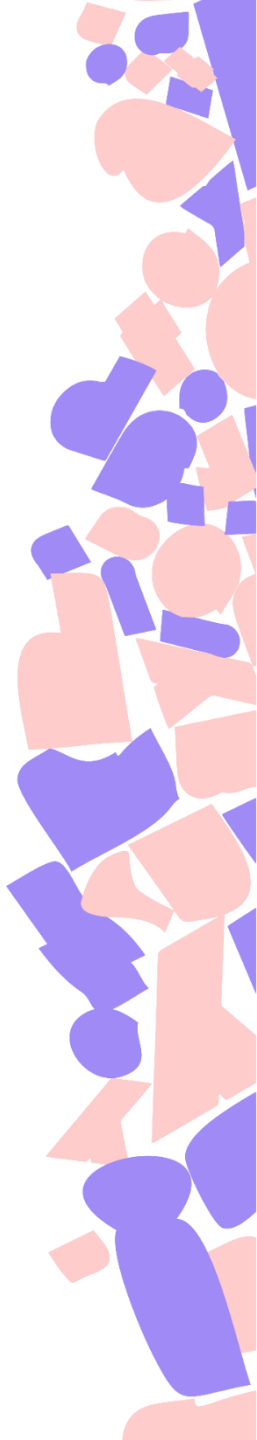
- India Sweden Innovation accelerator
- Cleantech Hub China
- Cleantech Hub Great Britain
- Cleantech Hubs US (NY & SF)
- German Swedish Cleantech Platform
- Business Accelerator programme Indonesia



The core Cs

Coming together is a beginning,
staying together is progress and
working together is success
(Henry Ford)

- Courage



Thank you for the attention!

