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# Comments/messages from an industrial perspective

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### Questions that move us

How can we create economic growth and reduce the consumption of energy and resources at the same time?

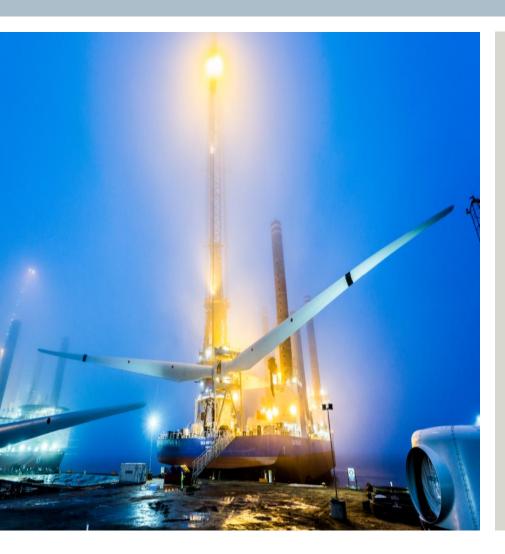
How can cities grow and at the same time offer a high quality of life?



How can we make industrial production more flexible, efficient and competitive?

How can we ensure healthcare that is both excellent and affordable?





1- Societal challenges have been used as starting points for our innovative business operations: from challenges to opportunities!



### Company Statement 2014 – Vision 2020

### Global Trends = Societal Challenges → Markets & Business

#### Global trends

## Digital transformation

Networked world of complex and heterogeneous systems

#### Globalization

Global competition driving productivity & localization

### Urbanization

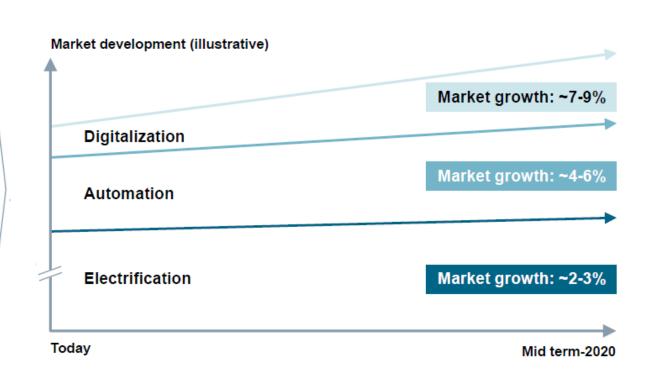
Infrastructure investment needs of urban agglomerations

# Demographic change

Decentralized demand of a growing and aging population

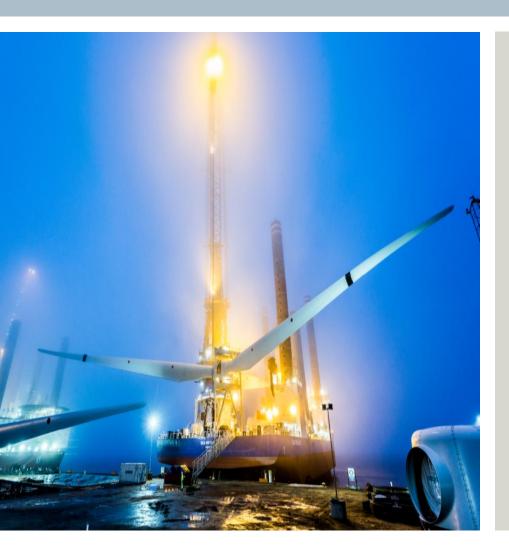
# Climate change

Higher resource efficiency in an allelectric world



From challenges to opportunities...



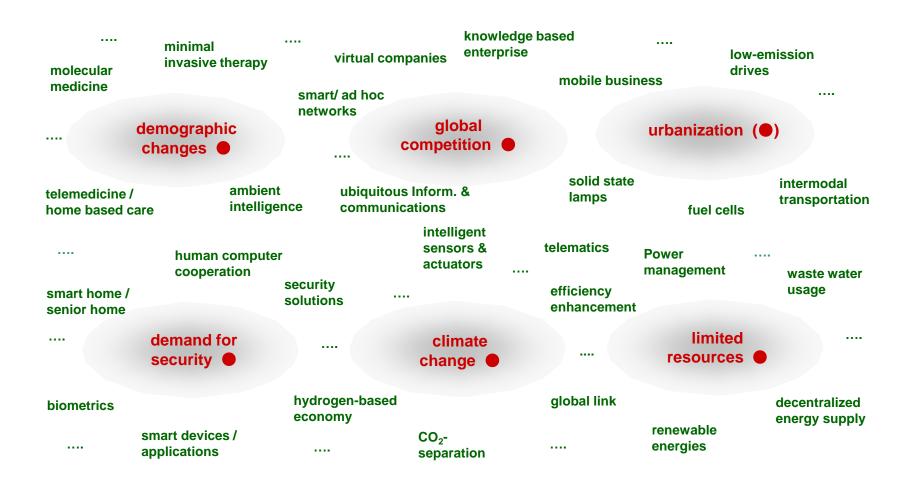


- 1- Societal challenges have been used as starting points for our innovative business operations: from challenges to opportunities!
- 2- There is no major dissent on the definition of societal challenges



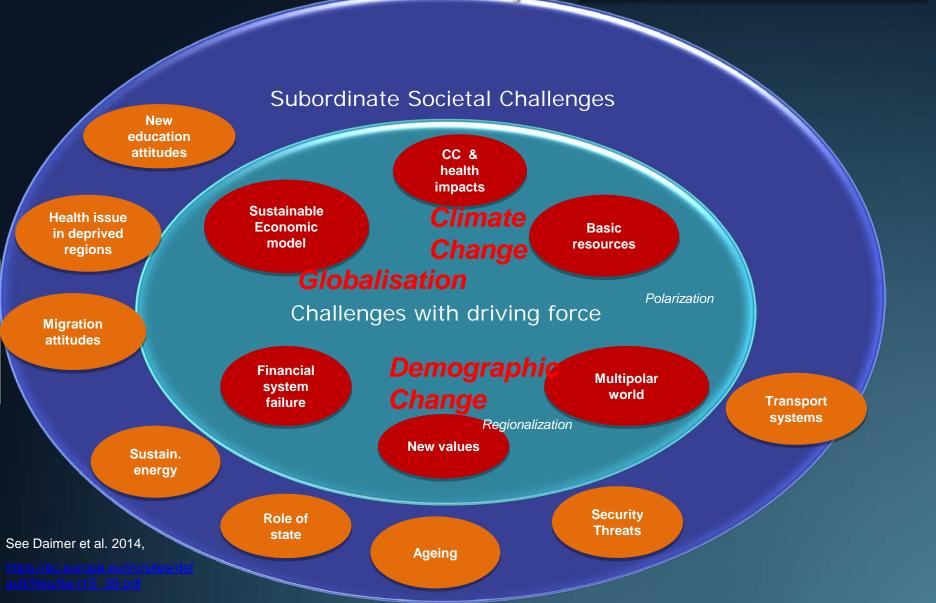
### **Company Statement 2006**

### Today's and tomorrow's global challenges require innovative solutions

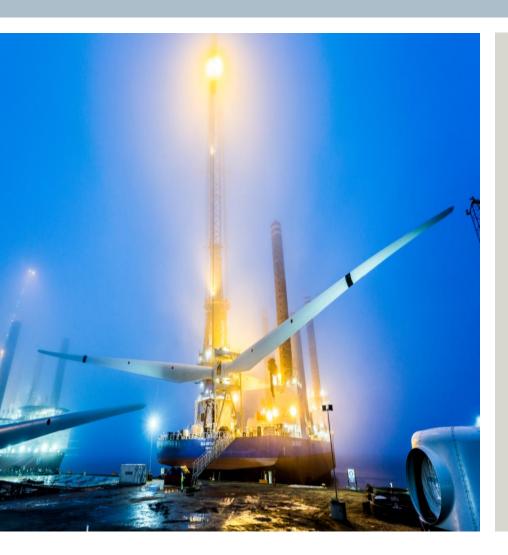




# How SC shape VERA scenarios







- 1- Societal challenges have been used as starting points for our innovative business operations: from challenges to opportunities!
- 2- There is no major dissent on the definition of societal challenges
- 3- The 4 VERA scenarios fit to a scenario design rationale with the two axis "Societal Trends" and "Organizational Structures"



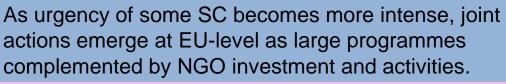
# VERA Scenarios: R&I Landscapes in Europe in 2030



Scenario 1: Private Knowledge - Global Markets

With public austerity policies enduring, R&I expenditure is dominated by firms and philanthropic organizations; knowledge production takes place in globally interconnected knowledge hubs.

Scenario 2: Societal Challenges – Joint Action





Scenario 3: Solutions apart – Local is beautiful

A paradigmatic shift towards new lifestyle and selfoptimization entails a preference for local solutions to social problems and influences the attitudes towards R&I heavily.

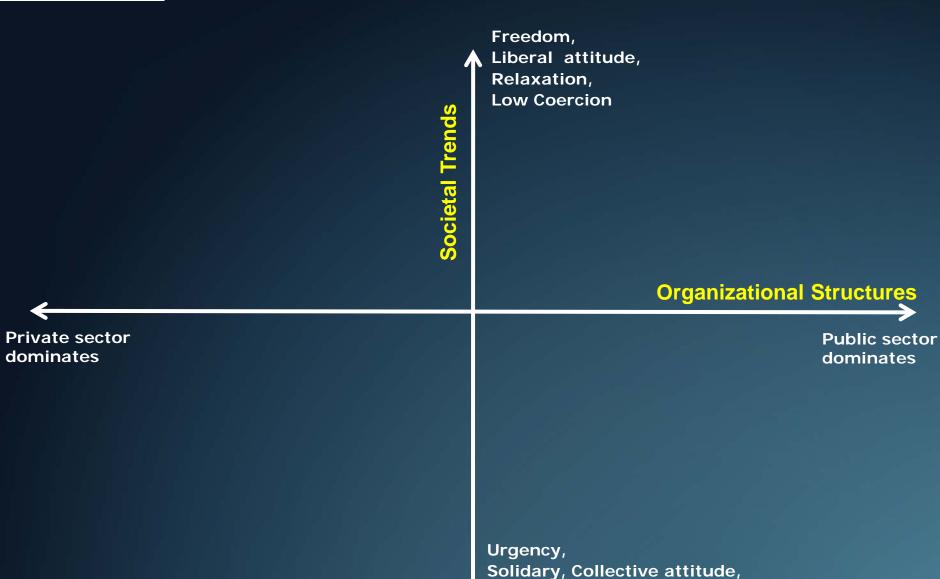
Scenario 4: Times of Crises – Experts at the Wheel

A new sense of 'deep sustainability' on which all economic, political and societal activities are based requires targeted scientific adaptation solutions.









Pressure,

**Strong Coercion** 





Freedom, Liberal attitude, Relaxation, **Low Coercion** 

### **Organizational Structures (R&I funding)**

**Private sector** dominates

increasing relevance <-- of private institutions:</pre> SMEs, NGOs, Charity, MNCs...

....individual, local, regional....

dominates increasing influence of central government: nation states, EU...

**Public sector** 



Societal Trends

Scenario 1:
Private Knowledge –
Global Markets



Freedom,

Liberal attitude,

Relaxation,

Low Coercion

**Organizational Structures** 

Public sector dominates

Private sector dominates



Societal Trends

Scenario 1: Private Knowledge –

**Global Markets** 



Freedom,
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### **Organizational Structures**

Private sector dominates



Public sector dominates

Scenario 2: Societal Challenges – Joint Action



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Times of Crises –
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Public sector dominates

Scenario 2: Societal Challenges – Joint Action





- 1- Societal challenges have been used as starting points for our innovative business operations: from challenges to opportunities!
- 2- There is no major dissent on the definition of societal challenges
- 3- The 4 VERA scenarios fit to a scenario design rationale with the two axis "Societal Trends" and "Organizational Structures"
- 4- From my perspective industry should have no major problem to support results of the VERA project the ultimate aim must be fostering the global competitivity of Europe!