

Our first-steps experiences

Bert van den Bos
Business Development
Vodafone Group R&D



Introduction to Vodafone & Group Research & Development

Why consider R&D in China?

Experiences

Conclusions

Impact on the organisation



Introduction to Vodafone & Group Research & Development

Why consider R&D in China?

Experiences

Conclusions

Impact on the organisation



Vodafone – World's Largest Mobile Community

GROUP R&D

**Vodafone has an
affiliate in China.**

No operation



Vodafone Group R&D – Mission



GROUP R&D



Driving Innovation in a Wireless World

Become the leading capability of its kind in the world
- a driving force for the future of wireless & Internet communications and their applications,
- with a reputation that attracts the best researchers in the world



Introduction to Vodafone & Group Research & Development

Why consider R&D in China?

Experiences

Conclusions

Impact on the organisation



History

- Prof. Mike Walker FReng (Director Group R&D) has established contacts with research entities and companies in China as part of our global relationship network
- Vodafone has had a stake in China Mobile Hong Kong since 2002
_ Vodafone has one seat on the board
- Feasibility Study for an R&D centre in China
- Final proposal put forward in Q1 2006. Approved in June 2006
- We expect the first people to join in March 2007



Why China?

- We looked at Korea, Japan, India and China (2002-2003)
- We chose China because
 - _ China is a growing economy
 - _ China is delivering more than 200,000 highly qualified students every year
 - _ Establishing a strong engineering presence in China will help to deepen our strategic relationship with China Mobile
 - _ New suppliers like Huawei are entering the world market
- This new centre will complement our R&D activities, skills and knowledge in Europe and the US.



Why China?

- Arguments used frequently by other companies

– Costs are not an argument for going to Beijing
– There are better places than Beijing like Chengdu.

– Innovation is growing and will become an important reason in the near future
– But not yet today



Objectives

- To develop the opportunity for owning technology and software in order to increase our influence over manufacturers
- To become a significant contributor to Beyond 3G in line with our world leadership
- To contribute to the open source community and to make the most of the benefits from this environment for new terminals and services
- To work with new Chinese and Asian industries and steer their technical development in order to match Vodafone's needs, thus enabling them to become strong suppliers to Vodafone
- To utilise China's low production costs and speed to produce new products after R&D projects with Chinese vendors have been successfully delivered



Introduction to Vodafone & Group Research & Development

Why consider R&D in China?

Experiences

Conclusions

Impact on the organisation



It is not an easy decision to make

Collaboration

GROUP R&D

- **Chinese vendors**

- _ Big in Development, small in Research.
- _ Very strong in executing R&D
 - Significantly faster than in Europe
- _ Follow standardisation trends
- _ Sometimes R&D is placed as a show case
- _ Having an R&D builds a strong link with the (local) government

- **Chinese universities**

- _ Size from 50,000+ to 5,000-
- _ Rich and poor universities
- _ Academic thinking is not always the driver
- _ Language is a barrier for international co-operation
- _ Many programmes are driven from social needs in China



It is not an easy decision to make

Culture

GROUP R&D

- **Relationships**

- _ First become friends then discuss business
- _ Value needs to be brought into the relationship before value can be taken out
- _ Time – speed

- **Way of working**

- _ Management styles
- _ Giving responsibilities
- _ Decisions are not always made by the people we expect
- _ People do exactly what they are being asked
- _ Effectiveness is relative



Introduction to Vodafone & Group Research & Development

Why consider R&D in China?

Experiences

Conclusions

Impact on the organisation



Implementation is a journey on its own

- There is no knowledge of and insight into China
 - _ Therefore it is a bold step
- People fear work will disappear to China
 - _ The R&D programme in China is additional to the existing programme
- Timing
 - _ When is the right moment?
 - _ Is it still too early?



Introduction to Vodafone & Group Research & Development

Why consider R&D in China?

Experiences

Conclusions

Impact on the organisation



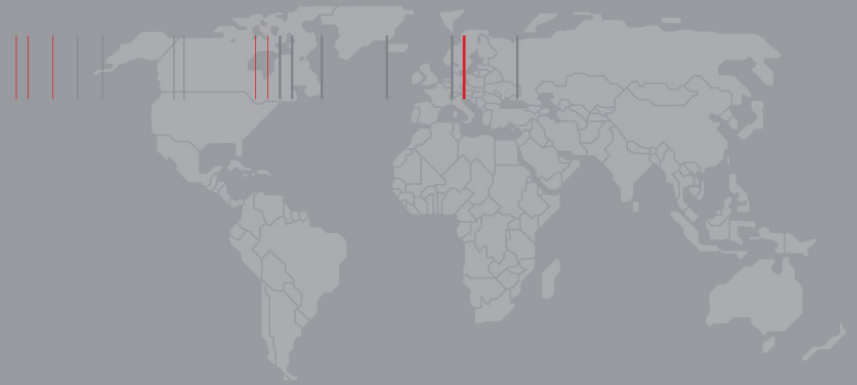
Conclusion

- Although Vodafone has no operation in China, it does make sense to have an R&D centre in China
 - _ Bring the technology from China to Europe and engage with Chinese vendors including start-ups
 - _ 200,000+ students every year
- Collaboration may be initially a one-way street
A clear goal needs to be set to benefit from the collaboration
 - _ Leverage the strong elements of current R&D in China
 - Speed
 - Costs of product development
 - New approaches



Bert van den Bos

Vodafone GROUP R&D



Tel +31 43 355 7567

Bert.vandenbos@vodafone.com

www.vodafone-RnD.com

