



WP5
***International R&D Strategies of EU MNEs
and
Integration into GINs***

Vandana Ujjual & Nick von Tunzelmann

SPRU, University of Sussex
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Results enable us to assess claims such as:

- *“Within five to ten years we will be moving from 'made in China' to 'discovered in China' ”*

Moncef Slaoui, the Chairman of R&D for GSK, 2007

- *“A global survey of 187 major companies suggested that by 2004 over two-thirds of their total R&D was being carried out at company-owned R&D sites abroad.”*

Keeley Wilson & Yves Doz, California Management Review, 2011





Aims

R&D Organisation

Overall Structure and Organization of R&D and Technology Creation

R&D Strategy

**Strategic importance & variety of activities undertaken in Emerging Markets;
Main location specific drivers;
Evolution - functions, capabilities.**

R&D Management

**Knowledge Transfer & Knowledge Integration;
External Collaborations;
Management Challenges- coordination, IP and Human Resources issues.**





Results have

Managerial & Policy Implications

- **To the R&D Managers of EU companies, the implications when pursuing **Emerging Market Growth Strategies****
- **Insights into Industry Specific Issues and the relevance and Nature of the **Global R&D Networks****
- **Implications that have relevance for the different elements constituting the **Innovation Systems of Developing countries & at Home****





Methodology - Case Study Approach

➤ 3 Sectors: Automotive, ICT, Agro Food

Criterion for selection

- The chosen MNEs amongst the world's leading,
 - large market share,
 - amongst the largest employers in their home countries,
 - amongst the leading R&D spenders in the EU.
- MNEs with R&D presence in emerging markets.
 - In most cases the company had R&D subsidiaries involved in development activities in India and China





Two Types of Perspectives

➤ HQ and Subsidiary Perspectives of EU MNEs

Interviews from:

- **HQ of EU MNEs**
 - Chief Technology Officer
 - Global Development Head,
 - Senior VP for Emerging Markets R&D
- **MNE's R&D subsidiary**
 - Head of R&D centre

Validate the data from interviews
-Press Releases, Corporate Website



Table I List of EU MNEs interviewed

	<i>India</i>	<i>China</i>	<i>Brazil</i>	<i>South Africa</i>	<i>HQ</i>
ICT					
NSN	y	y	n	n	y
Philips	y	y	n	n	y
Ericsson	y	y	n	y	y
Alcatel	y	y	n	n	n
ST Microelectronics	y	n	n	n	n
Infineon	y	n	n	n	n
Agro-Food					
Novozymes	y	y	n	n	y
Danisco	n	y	n	y	y
Company III	n	n	n	n	y
Company IV	n	n	n	n	y
Automobile and Parts					
Volvo	y	n	n	n	y
Bosch	y	n	y	n	y
Continental	y	y	n	n	y
Fiat	n	n	y	n	y
Autoliv	n	y	n	n	y
Total					
15 MNEs	10	8	2	2	12

Major Findings

- **Largest proportion of the MNE's R&D and technology creation happens within the EU.**
- **The US still remains one of their most important foreign locations outside the EU.**
- **However, their declared aim is to increase their presence in Emerging Markets.**

Two main driving forces:

- **Prospects of a large and growing Market PLUS**
- **Availability of a large pool of well-qualified scientists and engineers.**



A number of Trends in relation to R&D in Emerging Markets are visible





Trends

- A great deal of the activities in Emerging Markets concerned with adapting products/processes to the local market
- A number of companies are in the process of **Developing Low Cost Products & Solutions** specifically for these markets.
- To develop products and solutions **specifically targeting the Emerging Markets**, not minor modifications to the expensive products that serve western markets, by **Cheaper Design Implementations**
- R&D related to the **Development of Local standards**
This is able to explain the large R&D presence of some EU telecommunications companies in these markets





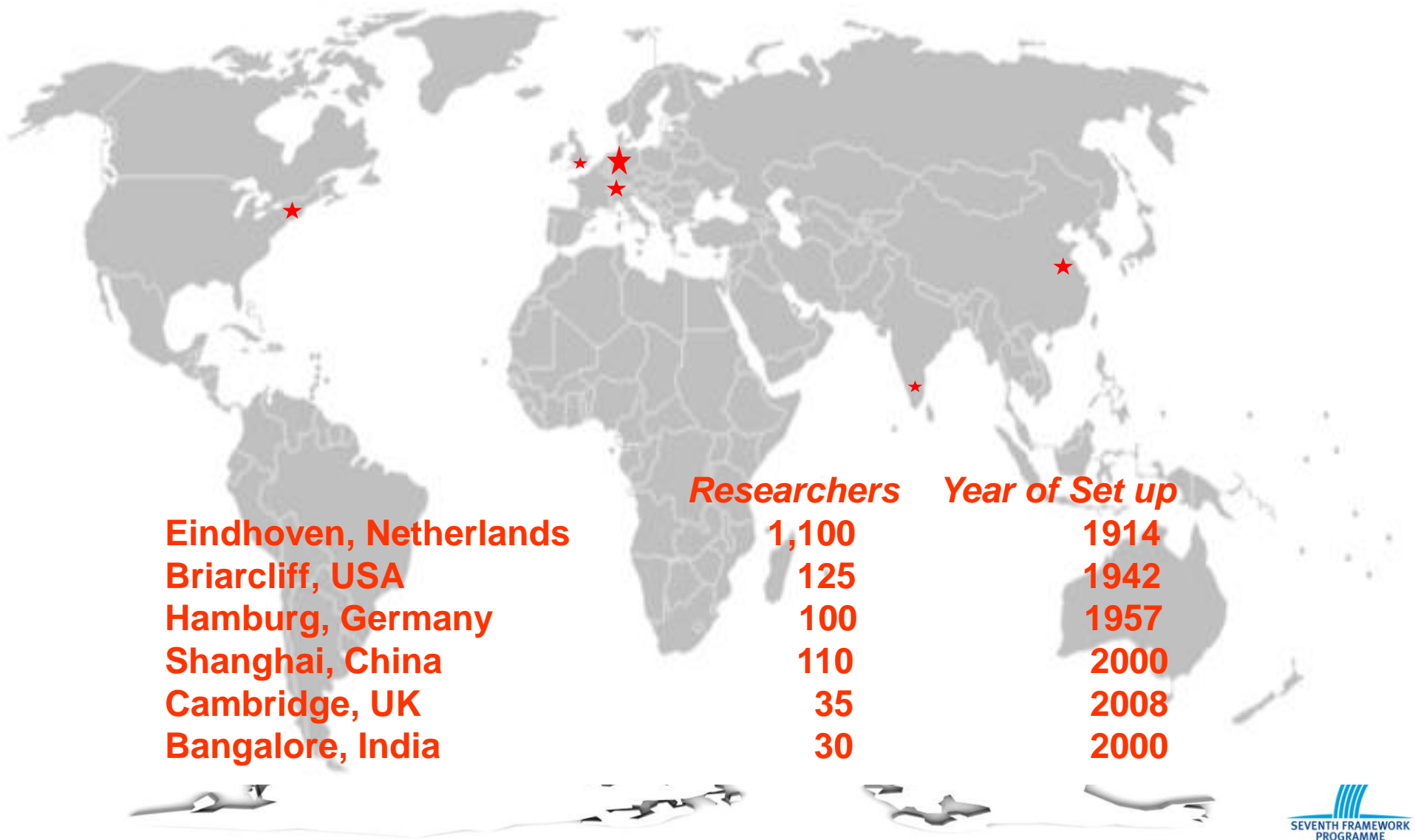
Specialisation in the functions

- Long established R&D and engineering centres of EU firms have evolved from providing:
low-cost, low-level support for peripheral activities to becoming **global centres for excellence** providing support to the R&D carried out in the rest of the company.
- This is especially the case for Design and Development of Software in the ICT companies in India.
- It is also important for both software and engineering services for the Automobile companies.
- Bio-technolgy in Agro-food, Protein Synthesis



PHILIPS RESEARCH

- the core corporate research group
6 Labs employing 1,500 Researchers





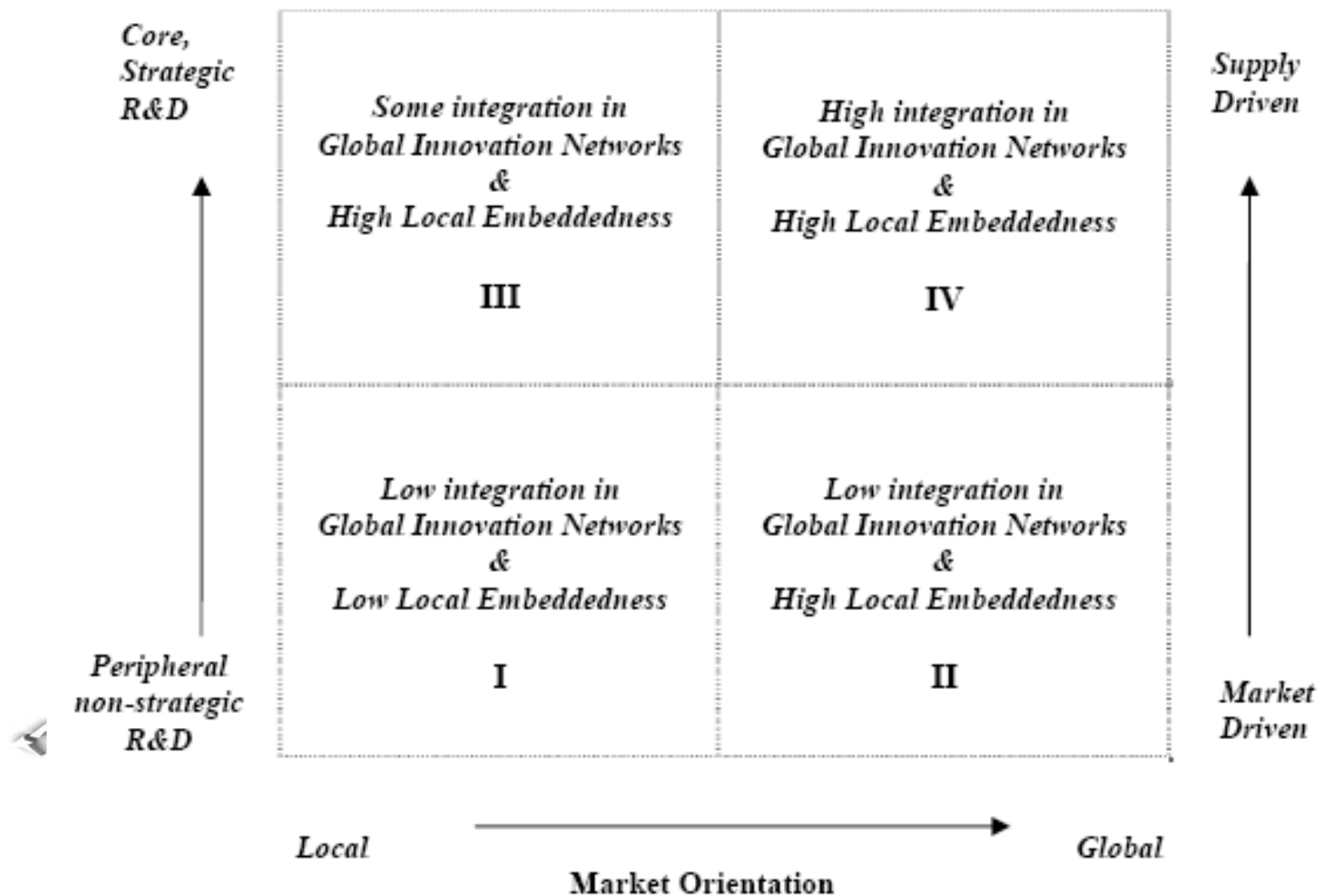
Evolution

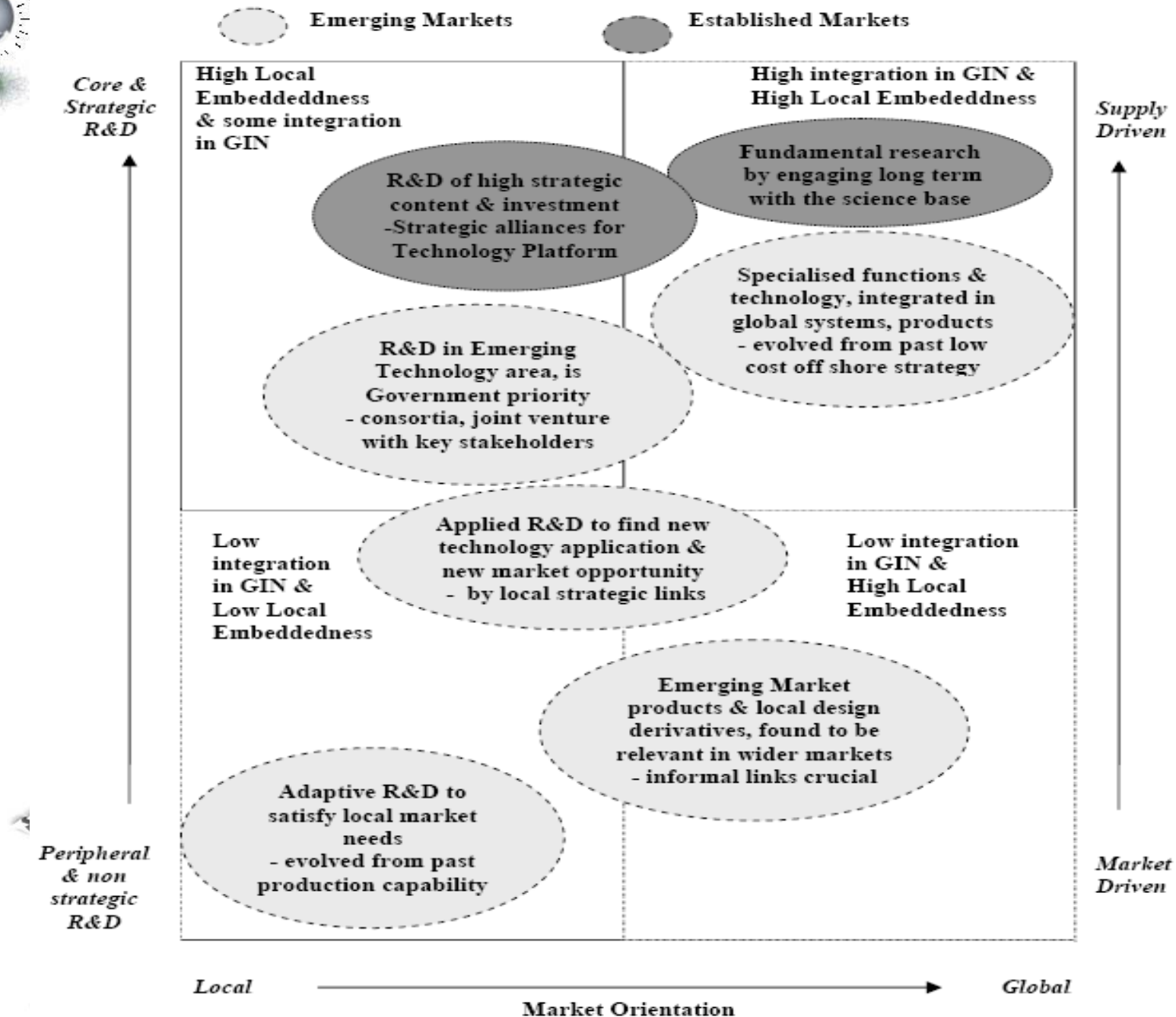
- Set up in 1992 as a small group providing routine services for Global Development teams.
- Driven by the need to consolidate the company's growing number of small engineering software operations worldwide and to create a large software centre outside Eindhoven.
- Now an integral part of Global Development, specialising in software based solutions for Philips Business Units
- Has acquired has Systems Capabilities, Extensive know-how & expertise in software engineering, technology domains.
- Expanded to 750 people, taking lead for global projects.

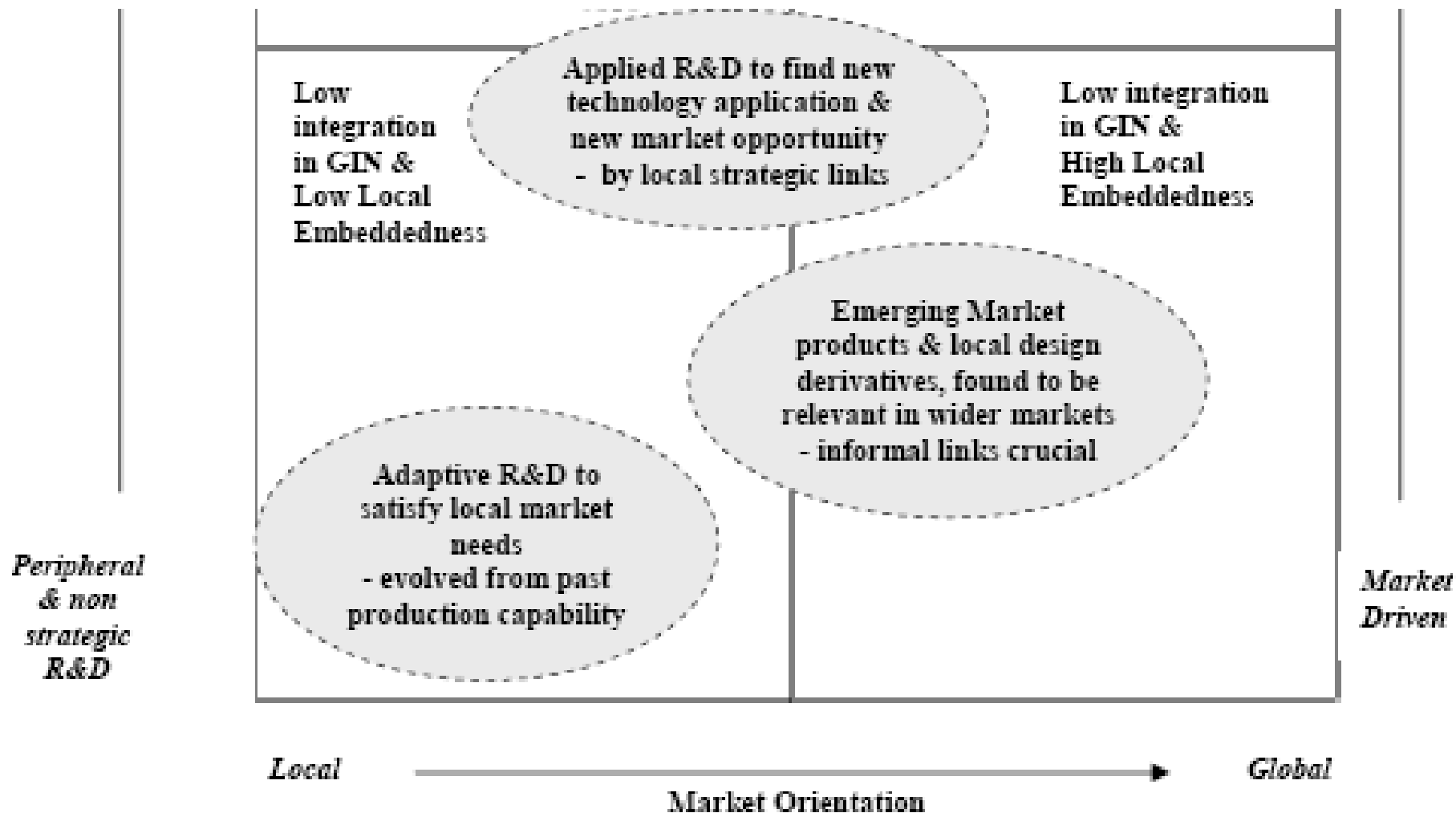


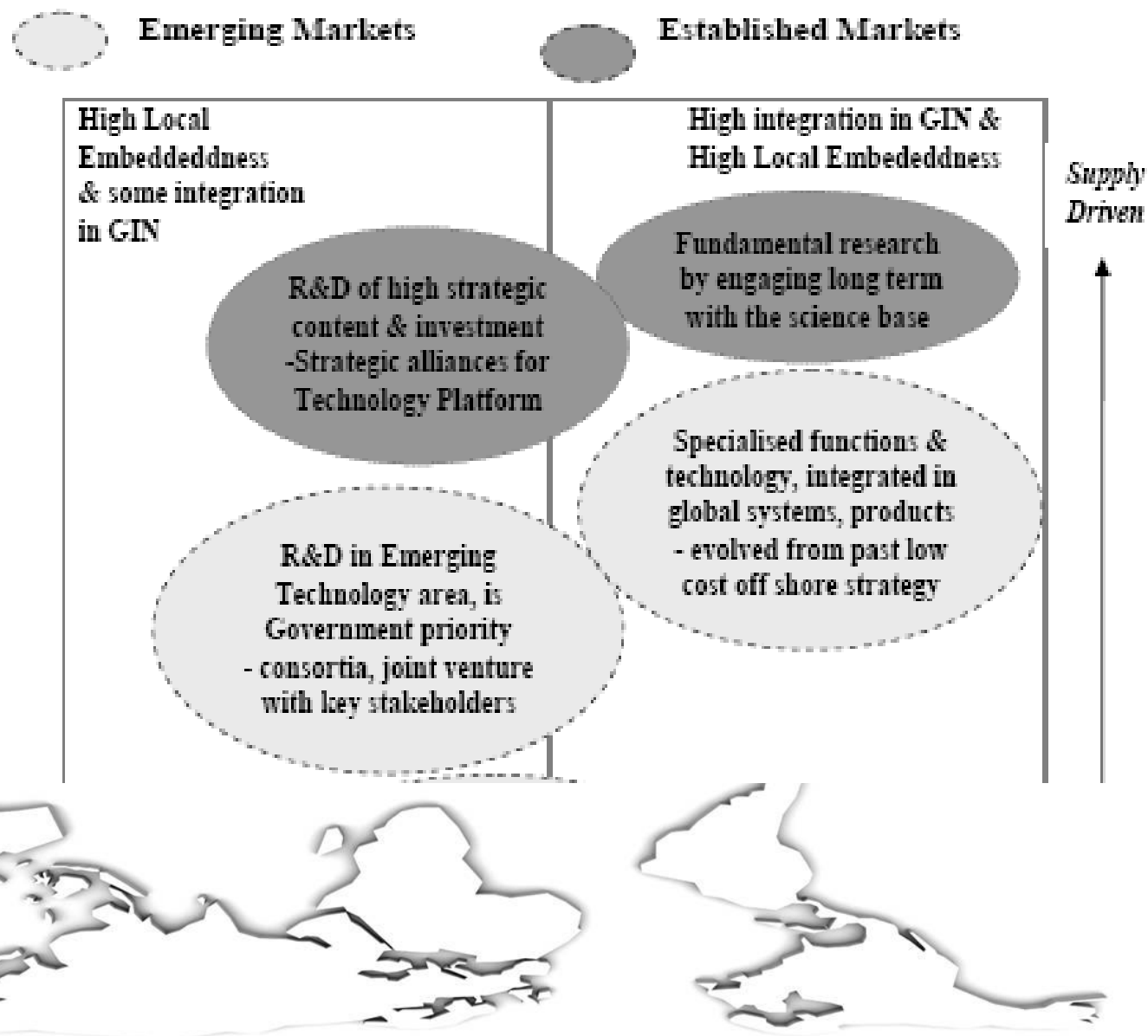
Innovation Strategies at the R&D Centres in Host locations

– A Conceptual Framework











Thanks for your attention

Vandana Ujjual

SPRU

University of Sussex

v.ujjual@sussex.ac.uk

