

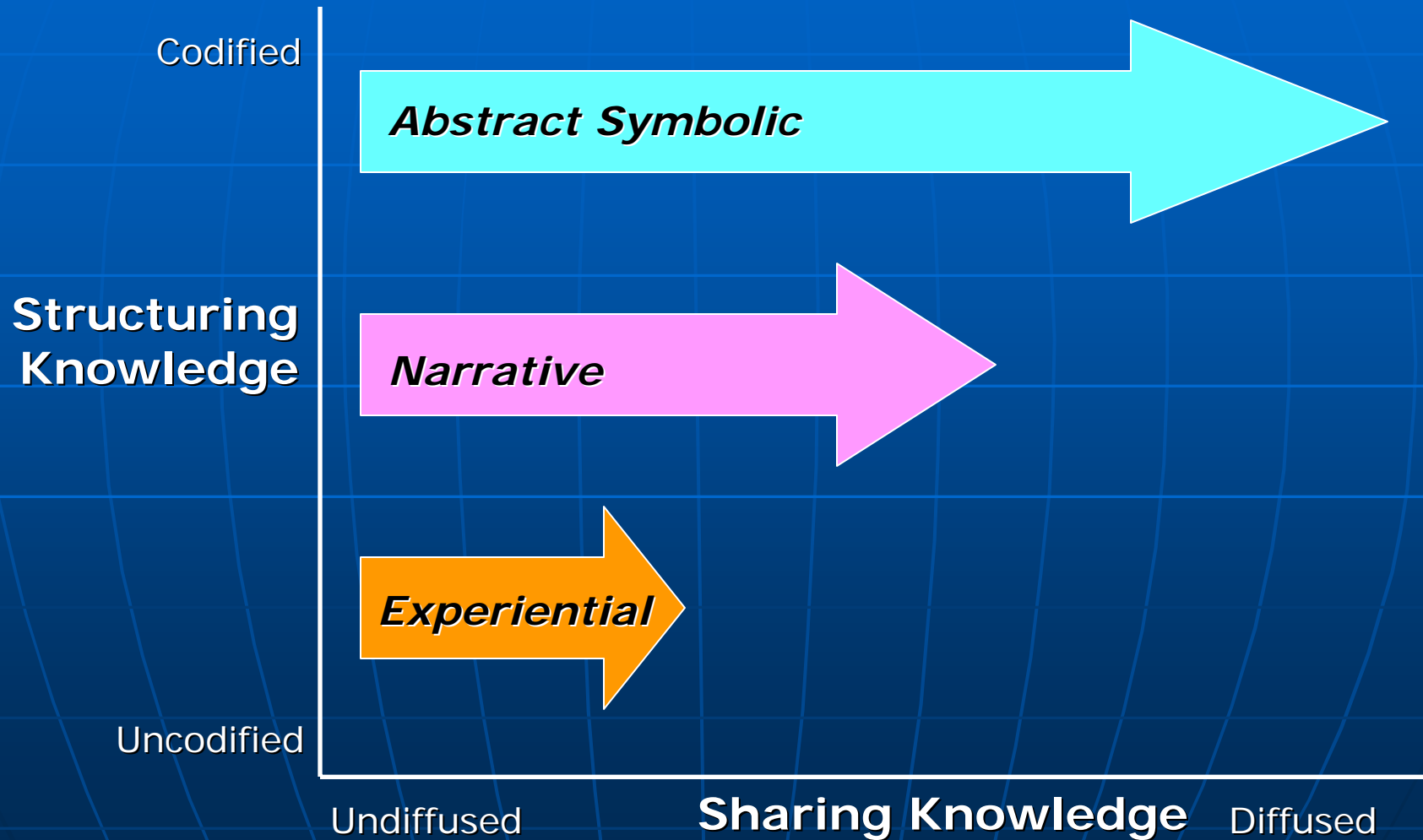
# **Exploration and Discovery: The Challenge to Bureaucracy**

**Max Boisot**

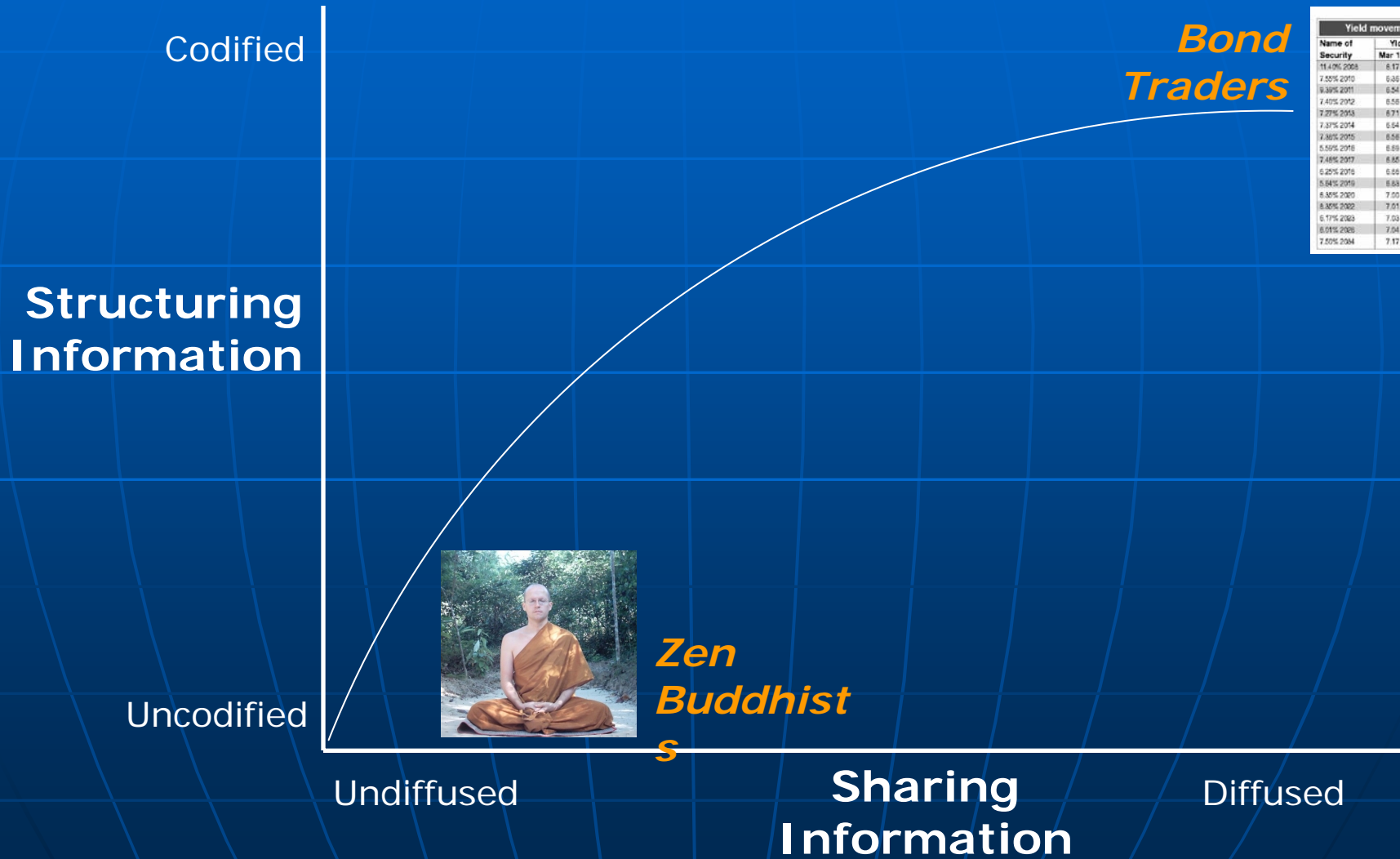
The University of Birmingham, UK

How can large organizations like Governments put in places processes, structures, and incentives that encourage their people to be exploratory?

# The Information-Space or *I-Space*



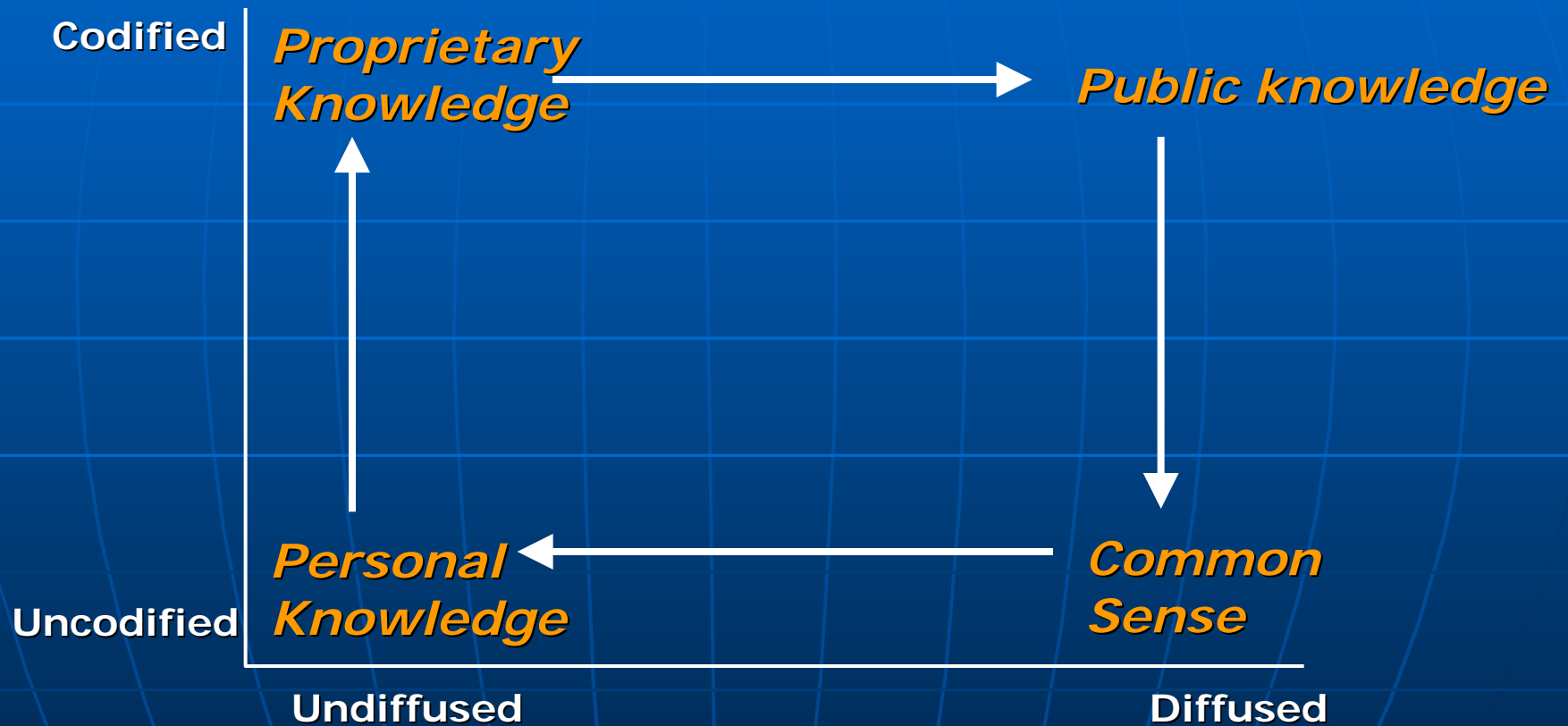
# Of Buddhists and Bond Traders



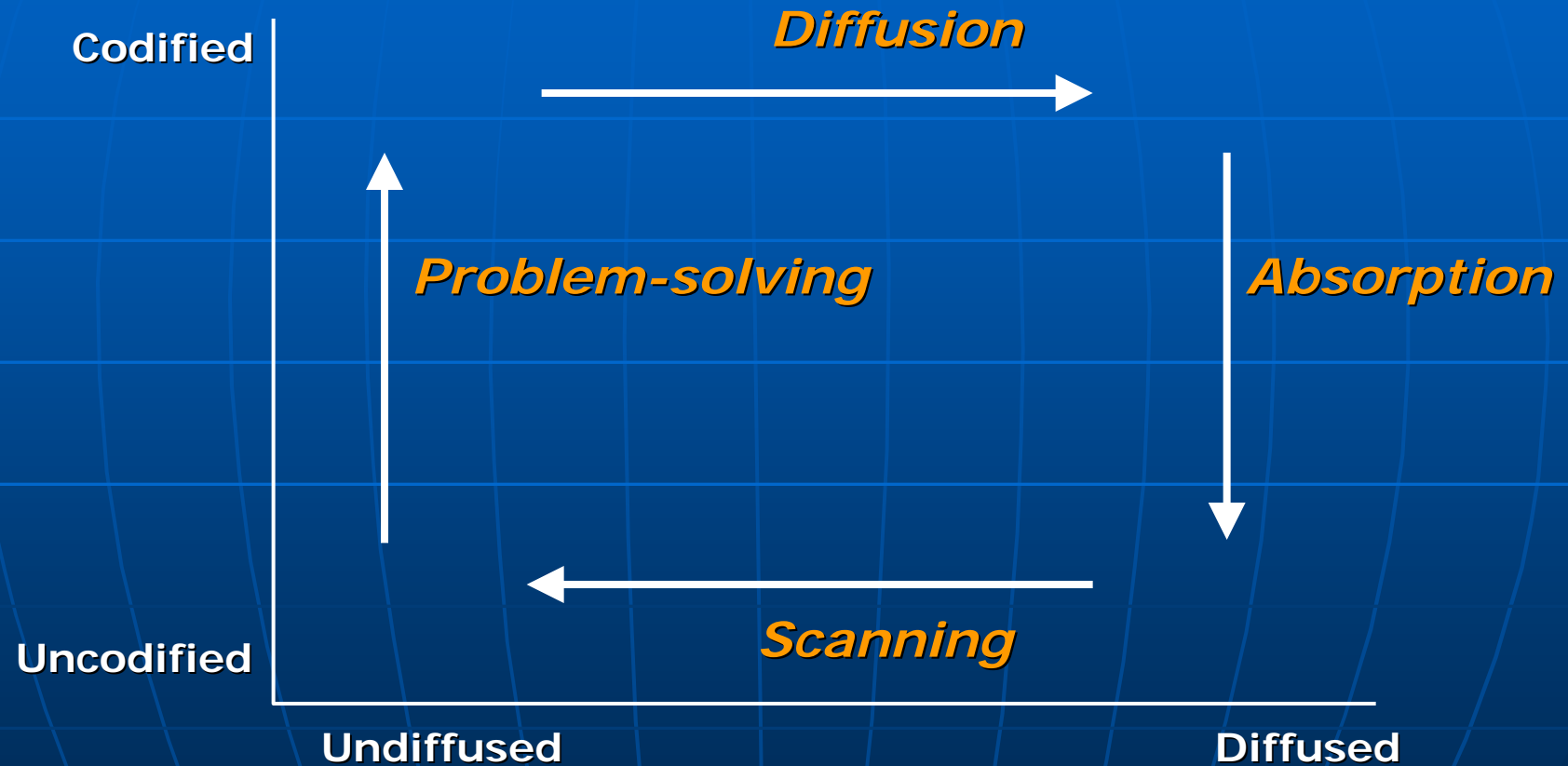
Yield movement (in per cent)

Name of Security	Yld as on Mar 11	Mar 4
11.40% 2003	8.17	8.18
7.50% 2010	6.30	6.30
9.30% 2011	6.54	6.57
7.40% 2012	6.55	6.61
7.20% 2013	6.71	6.75
7.30% 2014	6.54	6.60
7.30% 2015	6.56	6.61
5.50% 2016	6.59	6.71
7.40% 2017	6.55	6.63
6.20% 2018	6.66	6.91
5.64% 2019	6.63	6.96
6.30% 2020	7.00	7.14
6.30% 2022	7.01	7.18
6.10% 2023	7.03	6.85
6.00% 2025	7.04	7.06
7.50% 2024	7.17	7.34

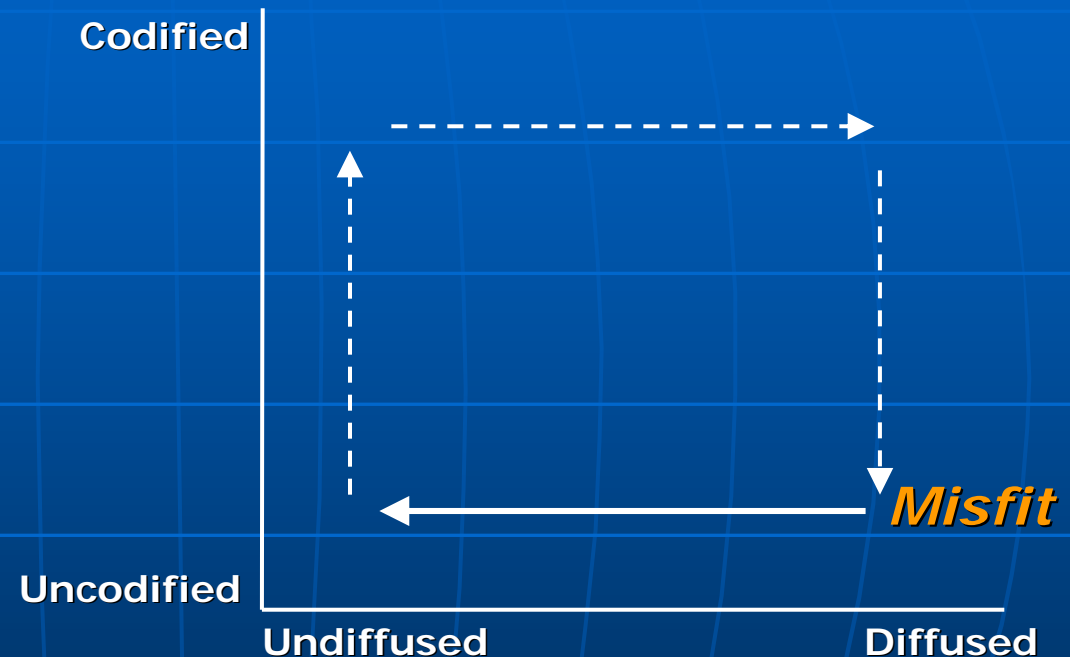
# Knowledge Creation



# The Social Learning Cycle (SLC)

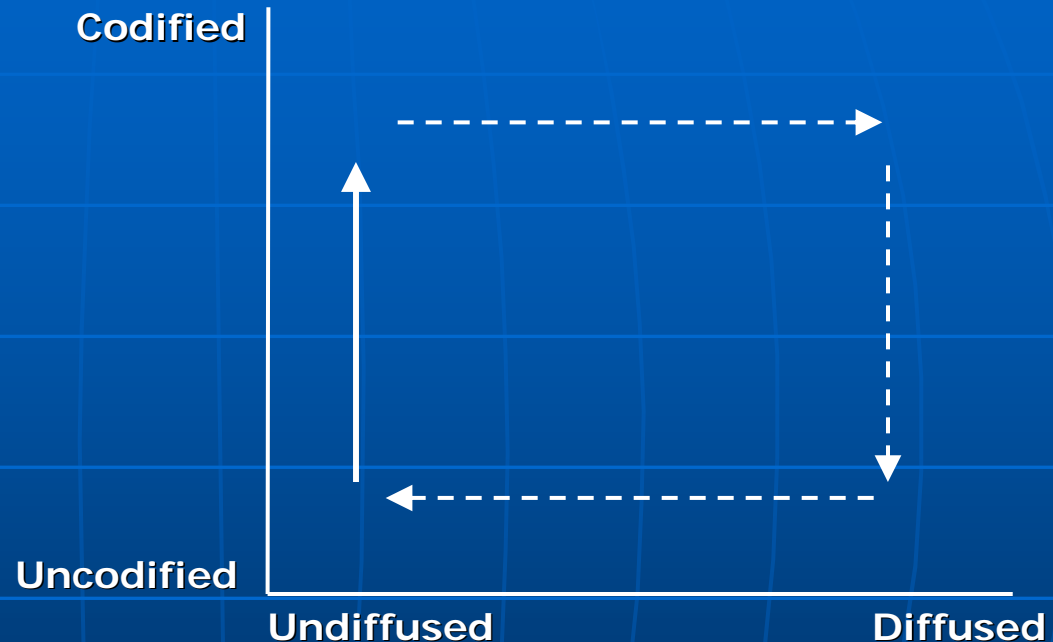


# Scanning



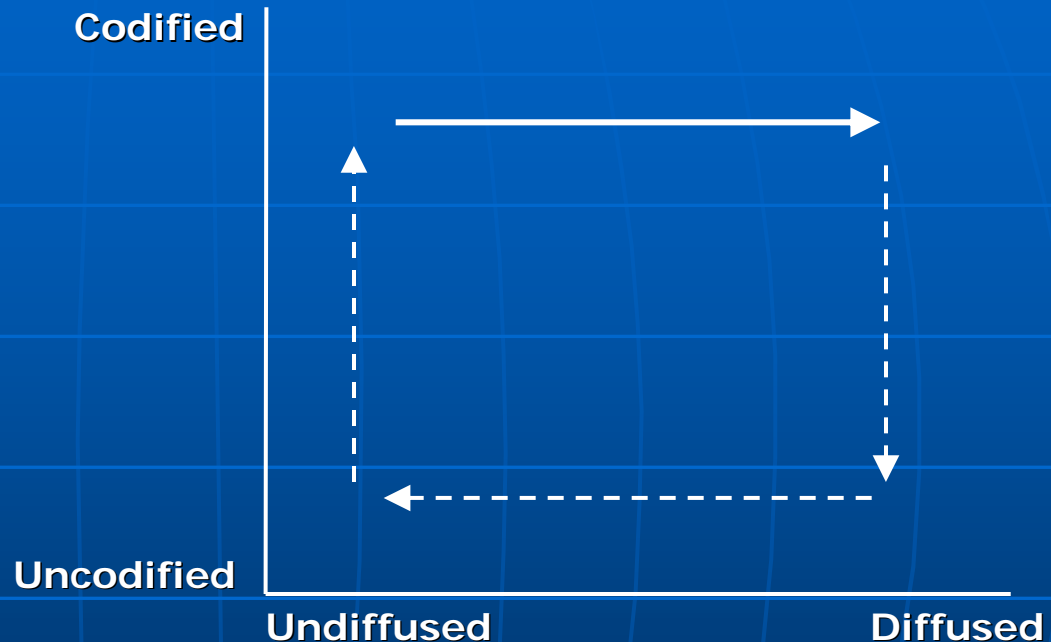
- Identifies misfits between expectations and outcomes: threats and opportunities
- Signals are often fuzzy. detection is slow and uncertain
- Data is often public, interpretations are not- they are often unique
- Group pressure can distort the scanning process

# Problem Solving



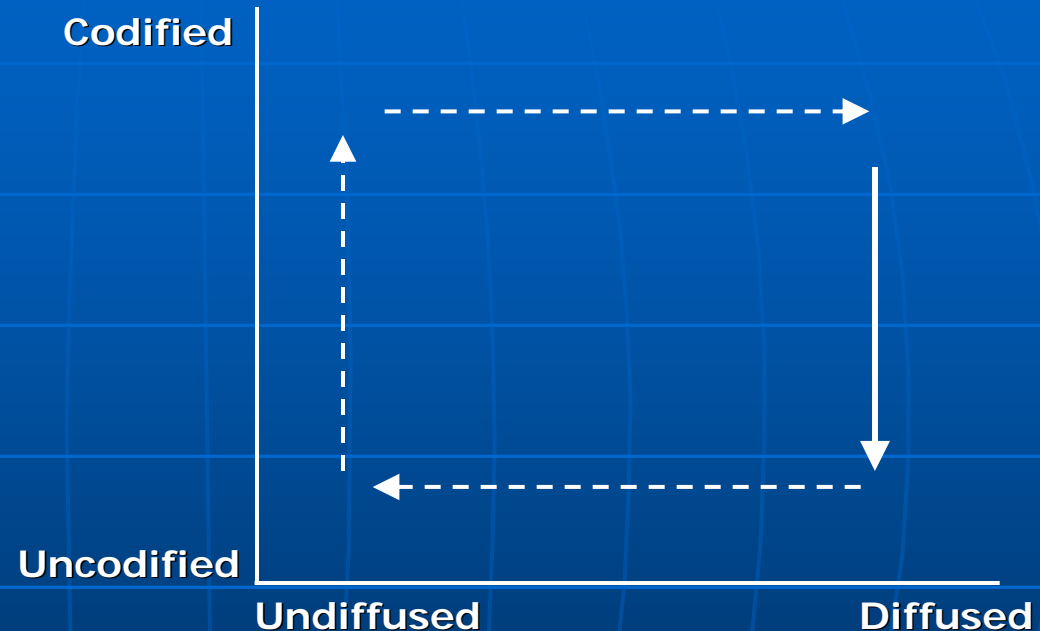
- An articulation of insights that result from scanning
- Codification gives structure and coherence to the insight
- It reduces uncertainty and ambiguity
- It sheds uncodified data along the way – either context or noise
- It generates conflict by forcing selection

# Diffusion



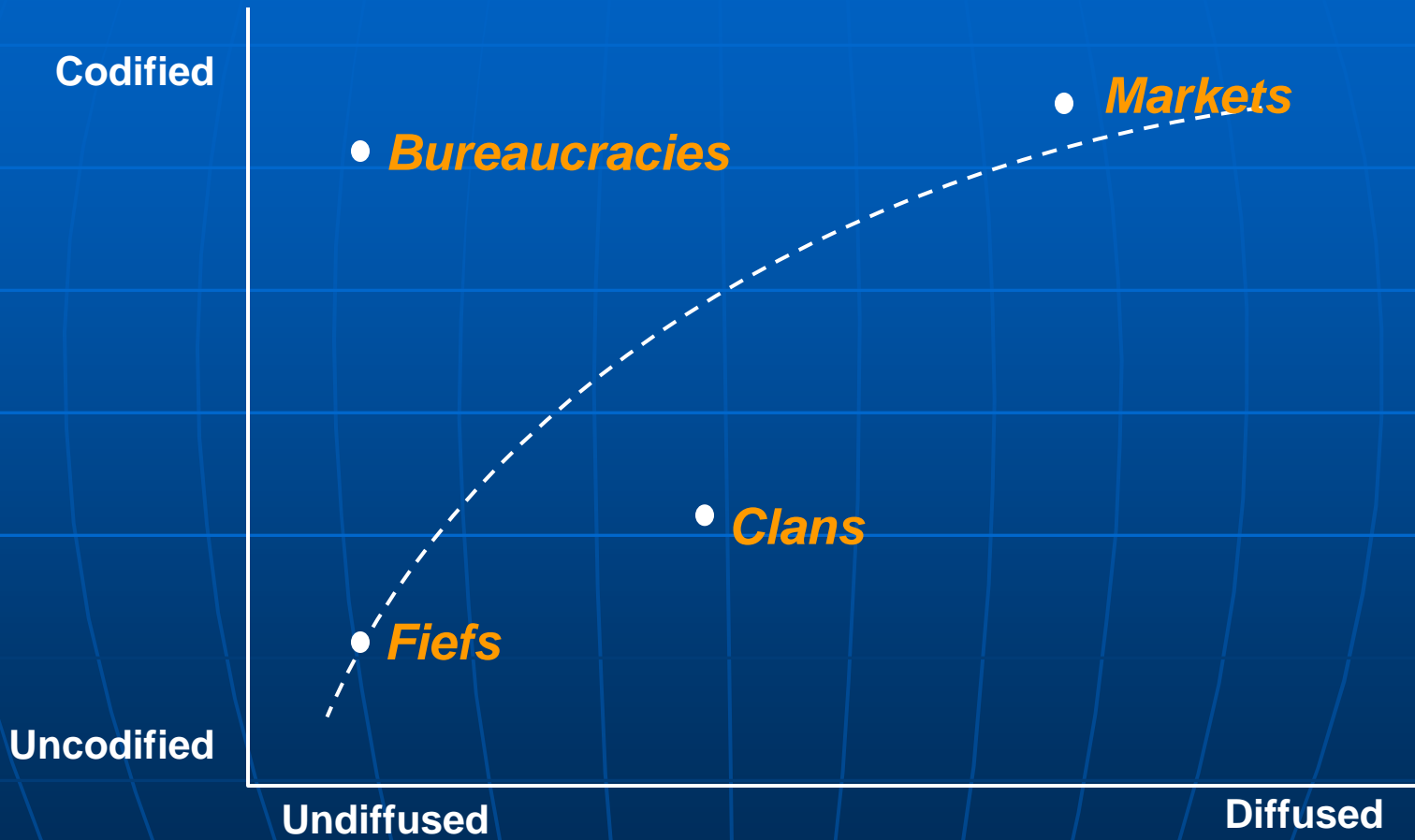
- **Codified data diffuses rapidly - unless controlled**
- **Its meaning will only register with those who know the codes**
- **The data is de-contextualised when it is codified and may be hard to interpret**

# Absorption



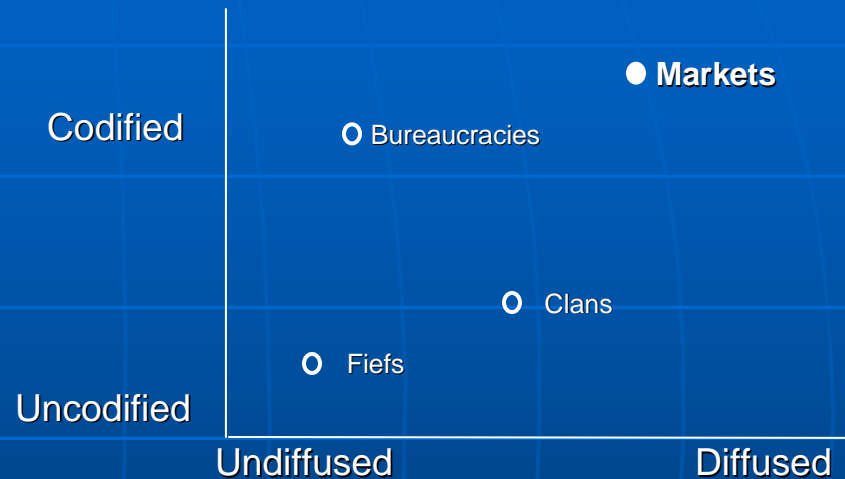
- Newly diffused data is applied in a learning by doing “fashion”
- An uncodified stock of practical experience builds up around the codified data
- The codified data may or may not match the user’s prior “common sense” view of the world.
- If it does not, a new round of scanning and learning may be initiated

# Institutions and Cultures in the I-Space



# Markets

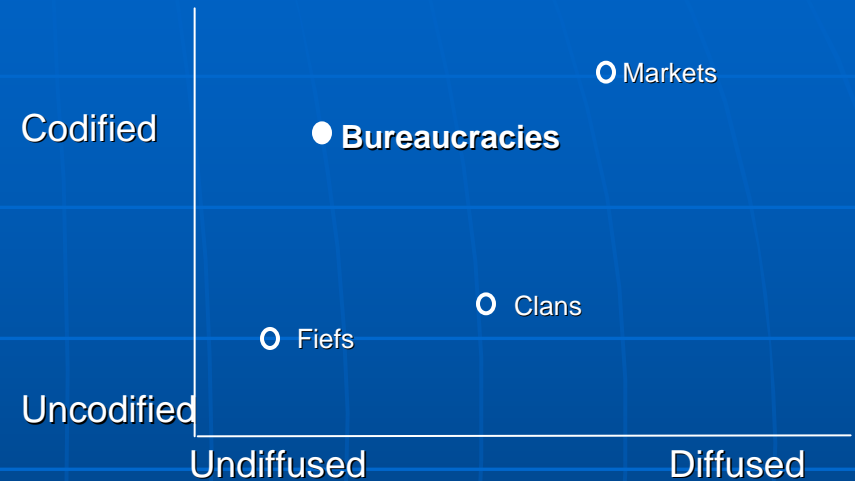
- Information Codified and Diffused
- Relationships are horizontal and impersonal
- No barriers to entry and exit – everyone can play
- A zero-sum world between competitors – everyone for himself



Examples : Financial markets, most commodity markets, some markets for casual labour

# Bureaucracies

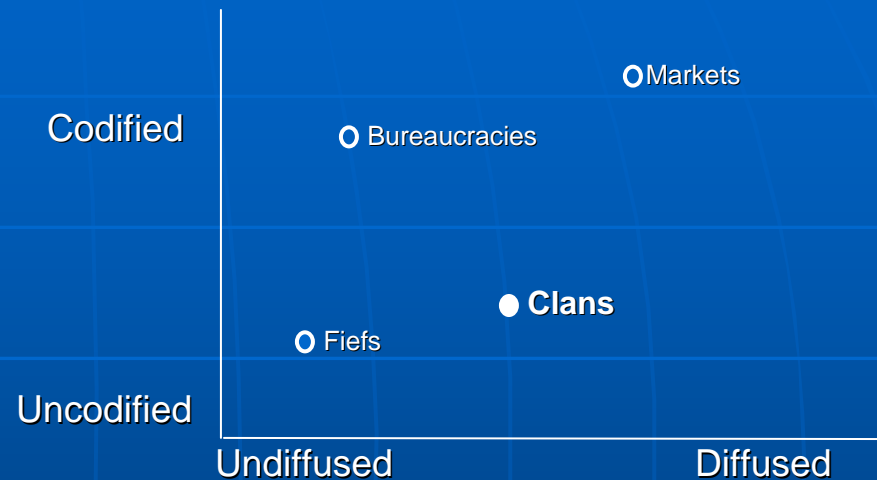
- Information codified and undiffused
- Relationships are hierarchical and impersonal
- Controls on the diffusion of information favours either centralization or the controlled delegation of decisions.
- Barriers to entry based on the possession of the appropriate codified knowledge
- Decisions based on 'hard' rather than 'soft' data



Examples: government agencies, the military, the large corporation

# Clans

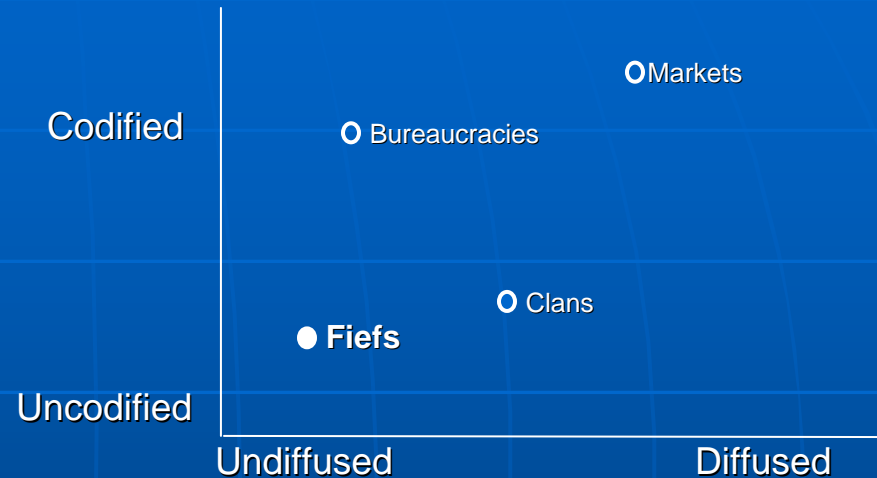
- Information uncoded and diffusion is limited
- Relationships are horizontal and personal and characterized by bargaining and negotiation
- Favours the creation of in-groups and out-groups
- Barriers to entry based on the possession of appropriate uncoded knowledge – ie, a knowledge and appreciation of context



Examples: Cartels,  
Kereitsu, top  
management teams

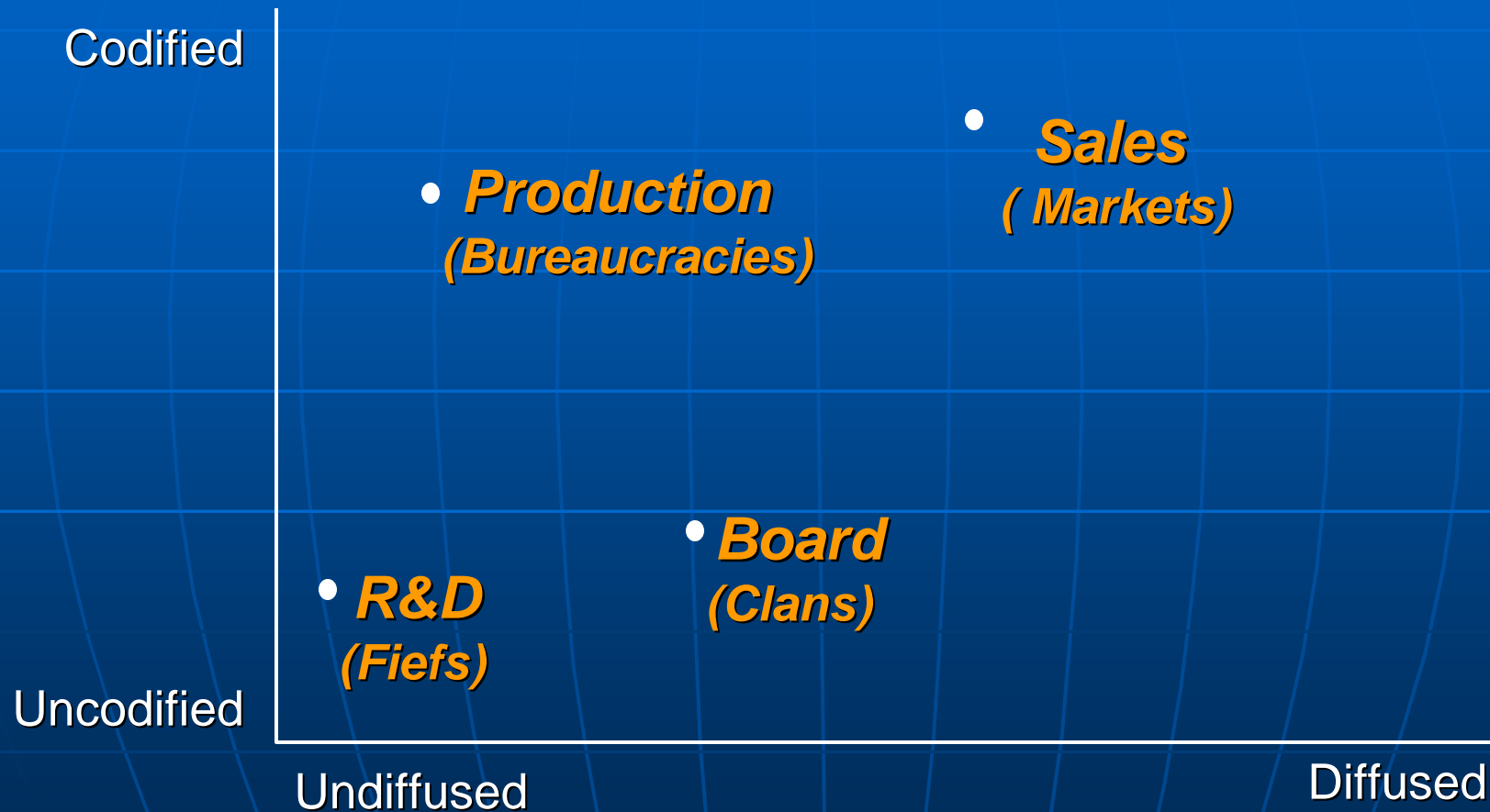
# Fiefs

- Information uncoded and undiffused
- Relationships are hierarchical and personal
- Barriers to entry based on the possession of unique uncoded knowledge – ie, personal experience
- Since mastery of contextual knowledge is everything, neither delegation nor decentralization is easy.

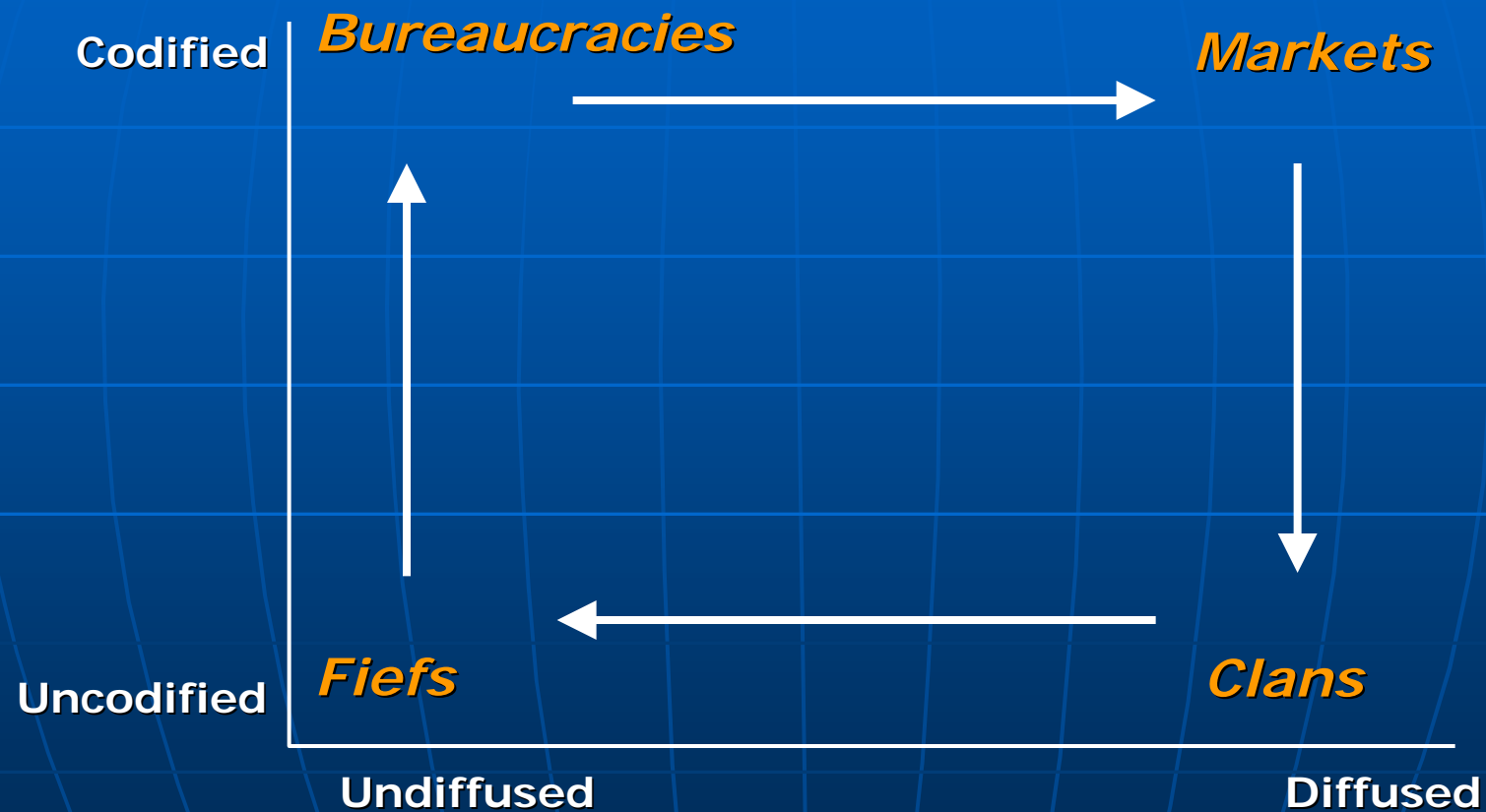


Examples: family businesses, some entrepreneurial start-ups, the top tier of some bureaucracies

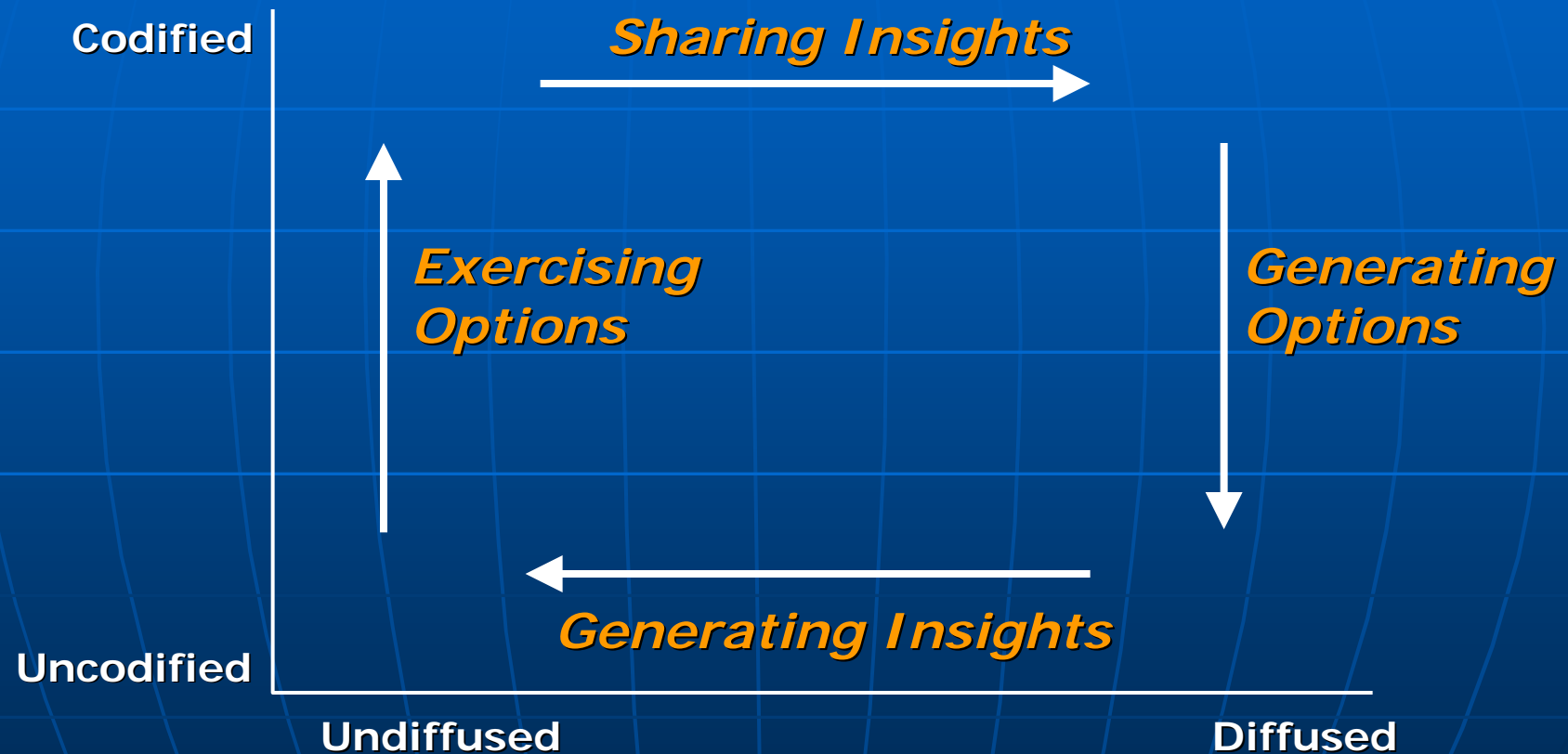
# Multiple Organizational Cultures in the I-Space



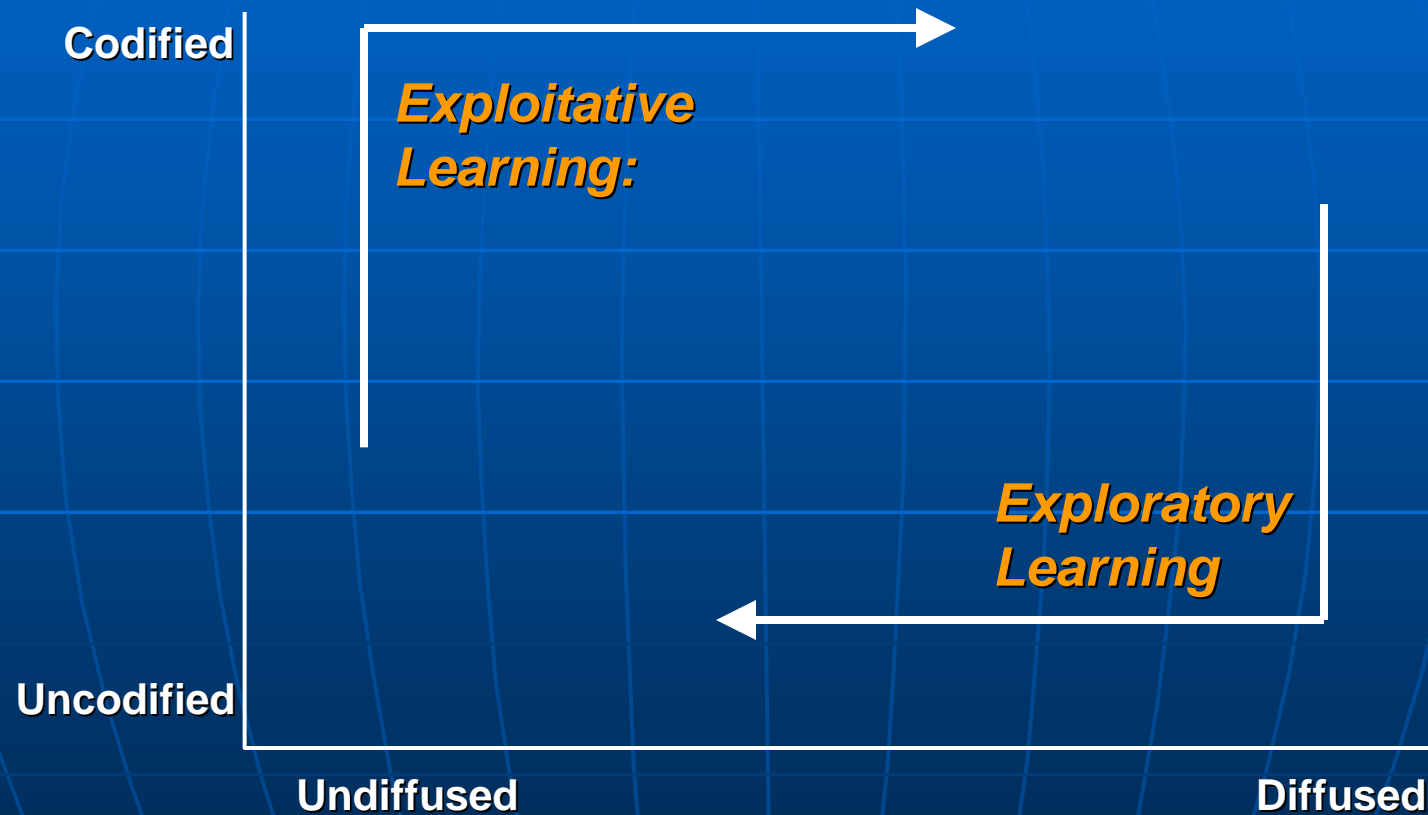
# Culture and Learning



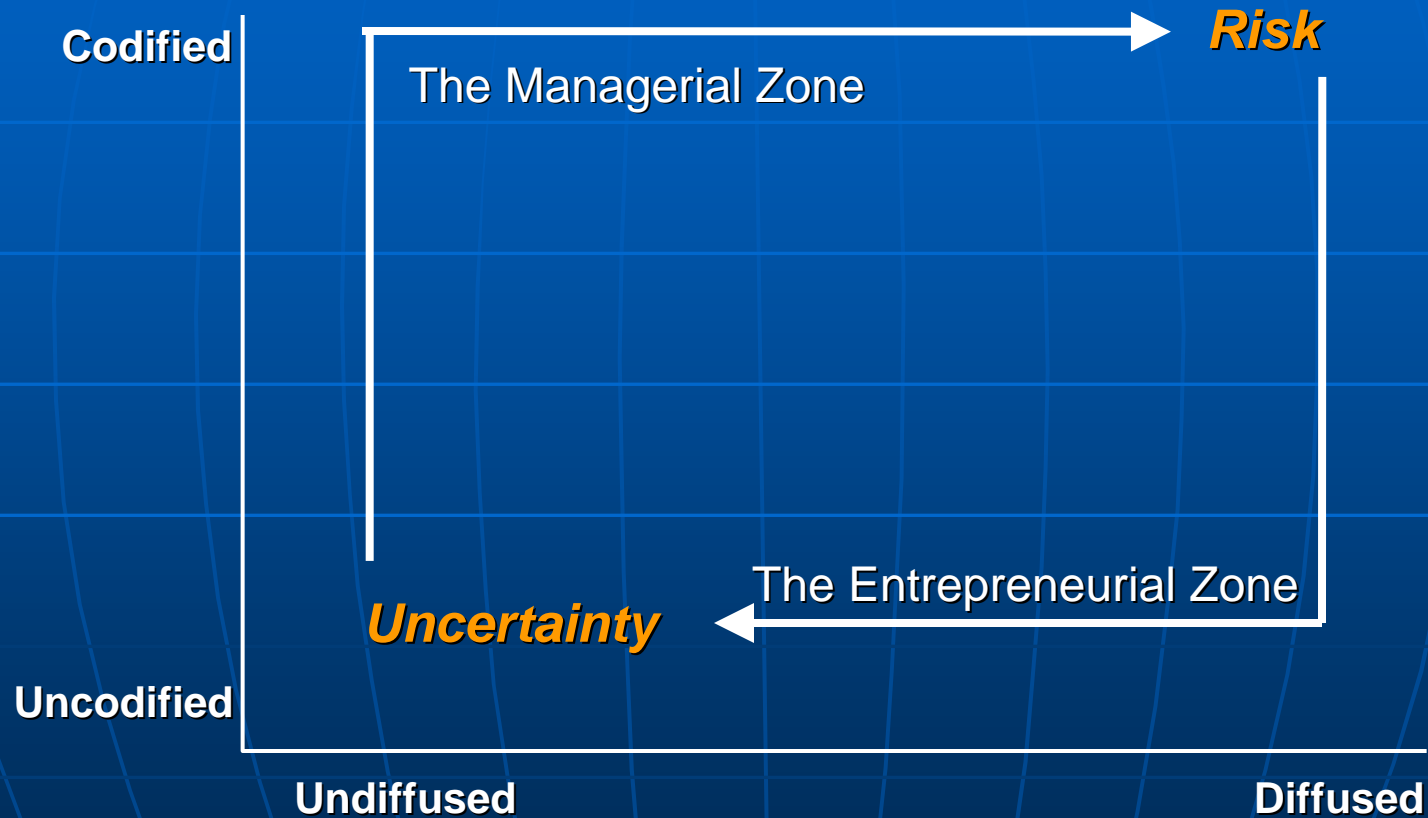
# An Options Perspective on the SLC



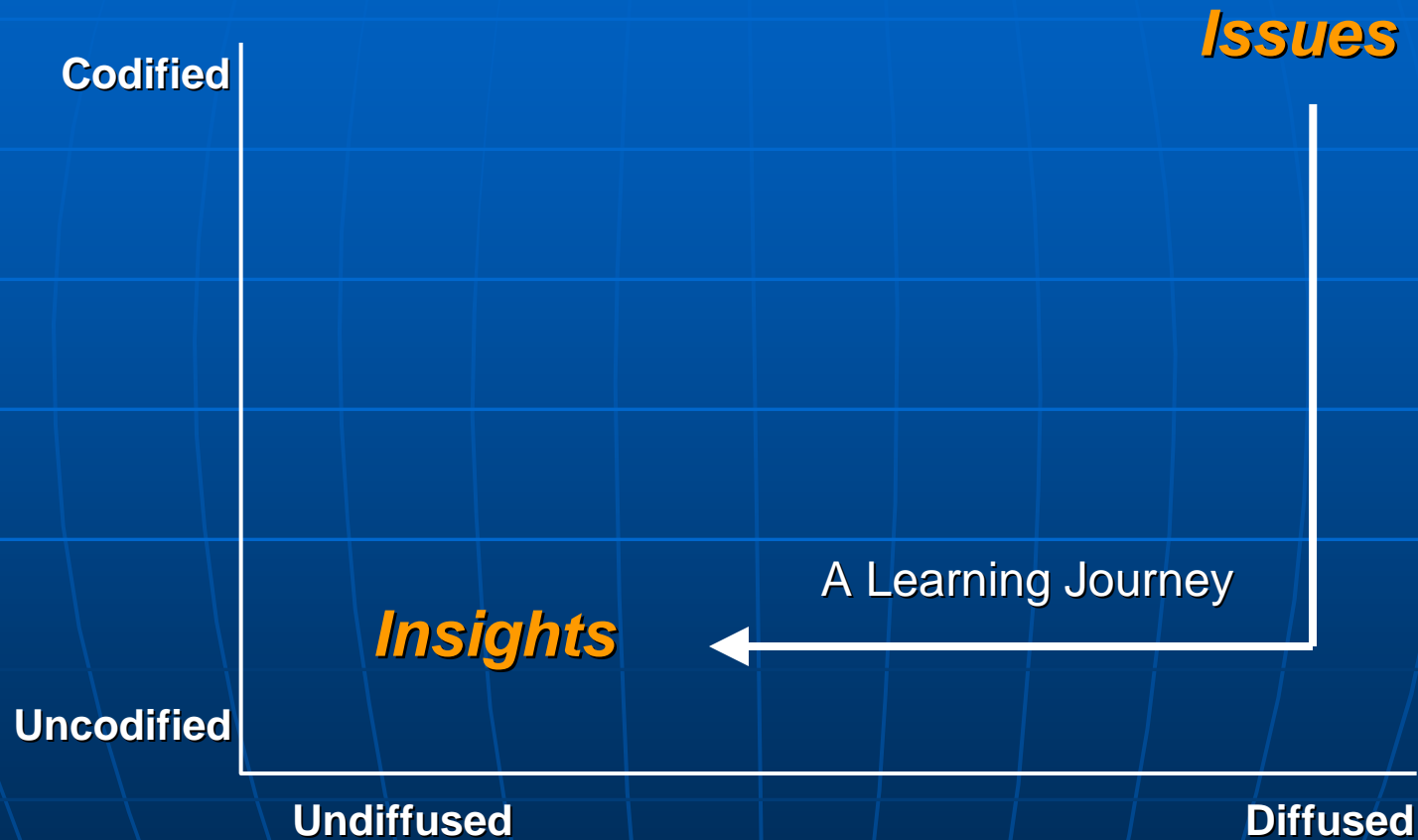
# Exploratory and Exploitative Learning in the SLC



# The Bureaucratic Bias in the SLC



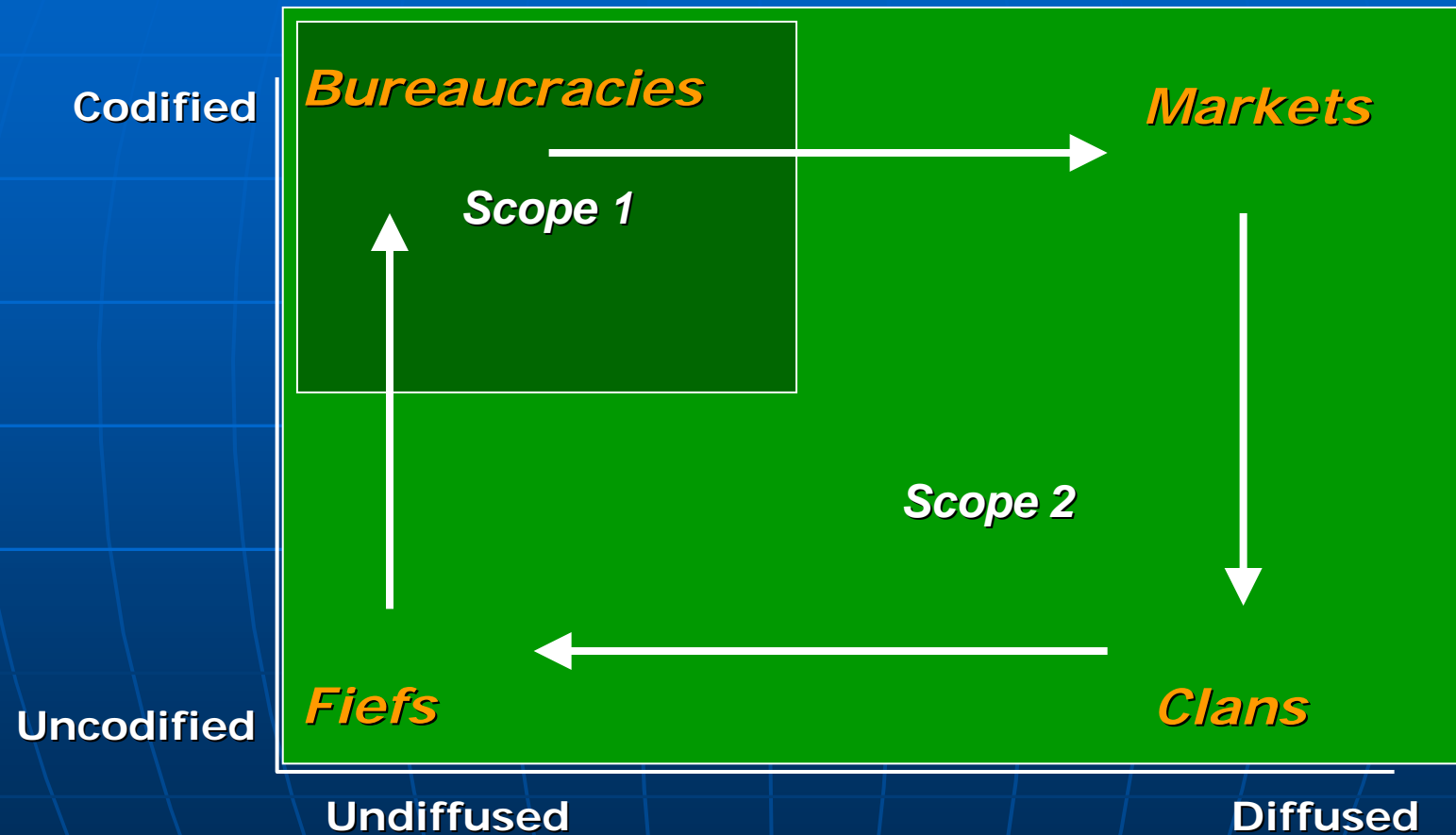
# A Learning Journey in the SLC



# Key Takeaways

- Today, governments need more than just bureaucracy
- They must manage uncertainty as well as risk
- Uncertainty is a bearer of opportunities as well as threats
- Managing uncertainty calls for *entrepreneurship* – for exploratory learning as well as exploitative learning
- But entrepreneurship needs entrepreneurial rewards

# The Scope of Government?



**Thank You**