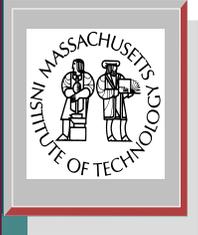


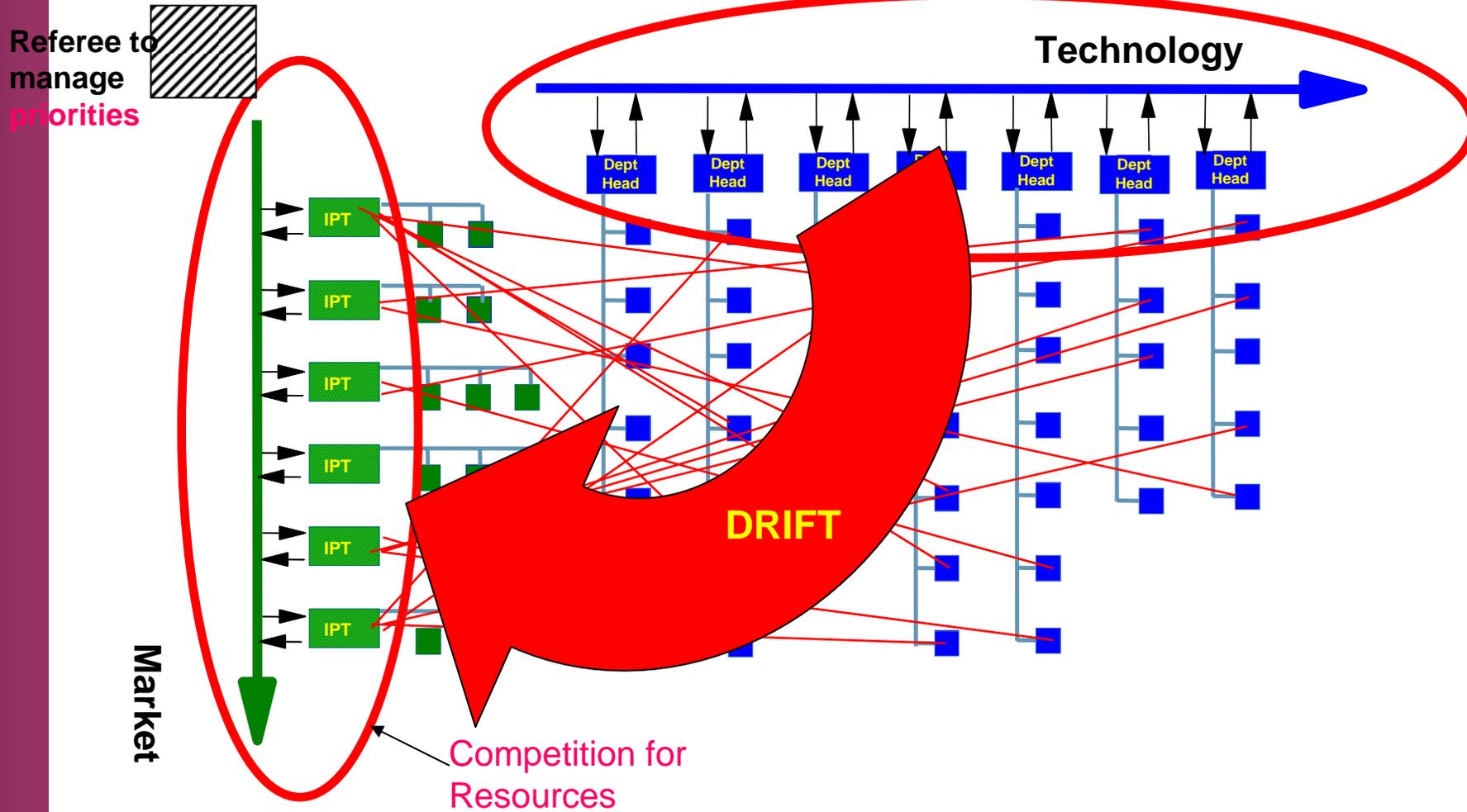


Structuring the Product Development Organization (Continued)

May 3, 2007



Matrix Connections to Market and Technology





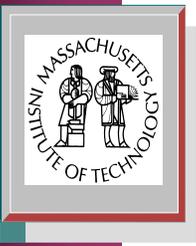
Imbalance

- What is the problem when power, authority and credit drift to the project side of the product development matrix?
 - Project managers are in a high pressure role.
 - Pressure emanates from the Marketing function and from key customers.
 - The competition already has their next generation out. Where is ours?
 - This can tempt project managers into premature clearance of the product.

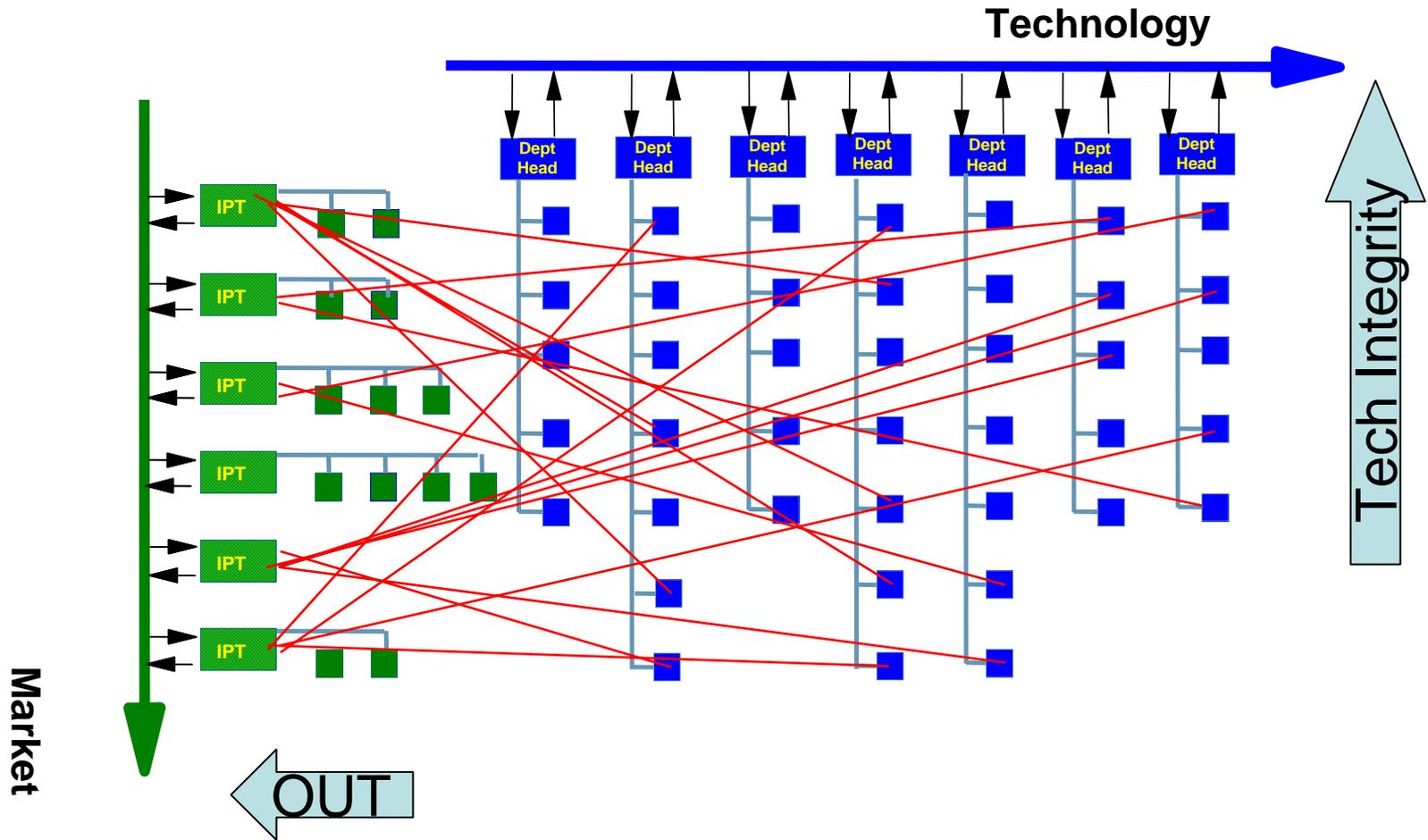


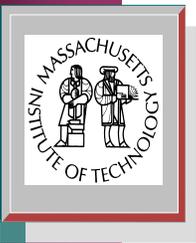
Countering Imbalance

- There must be a countering force to constrain the project manager's temptation toward premature release.
 - Where better to find this force than in departmental management?
 - Departmental management should be responsible for the technical integrity of the product.
- Of course, if the balance shifts too far toward departmental management, products may be delayed too long and 'time-to-market' extended too far.

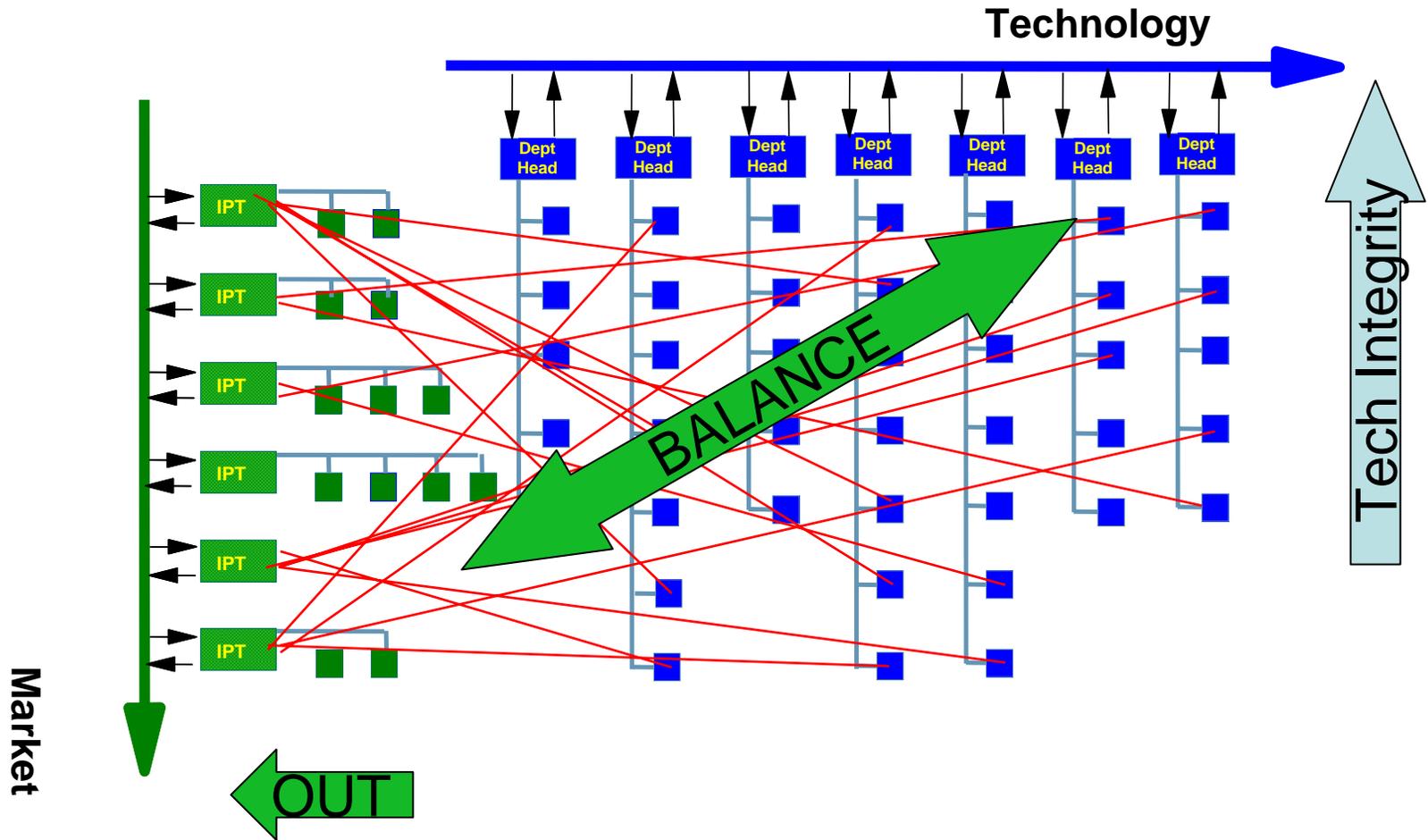


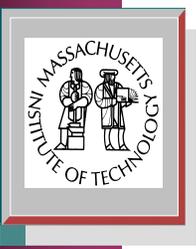
Problems with Imbalance





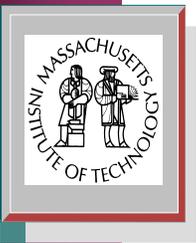
Problems with Imbalance



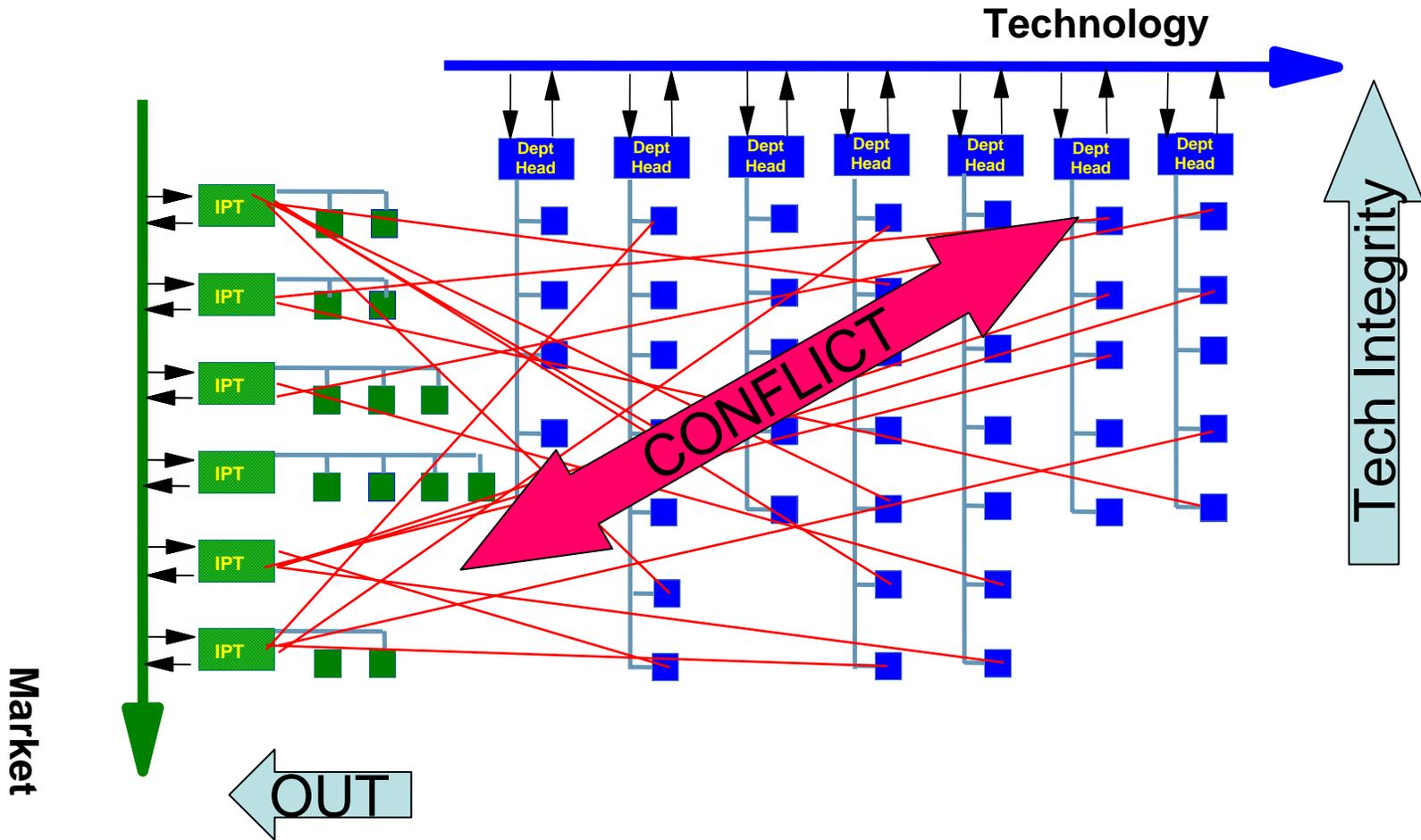


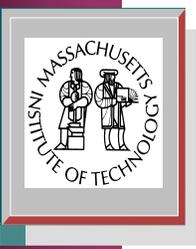
Resolution of Two Forces

- It is the resolution of the two forces that produces the optimum.
 - Project management pulling the product out.
 - Departmental management holding back.
- This quite naturally leads to *conflict*.



The Inescapable Conflict



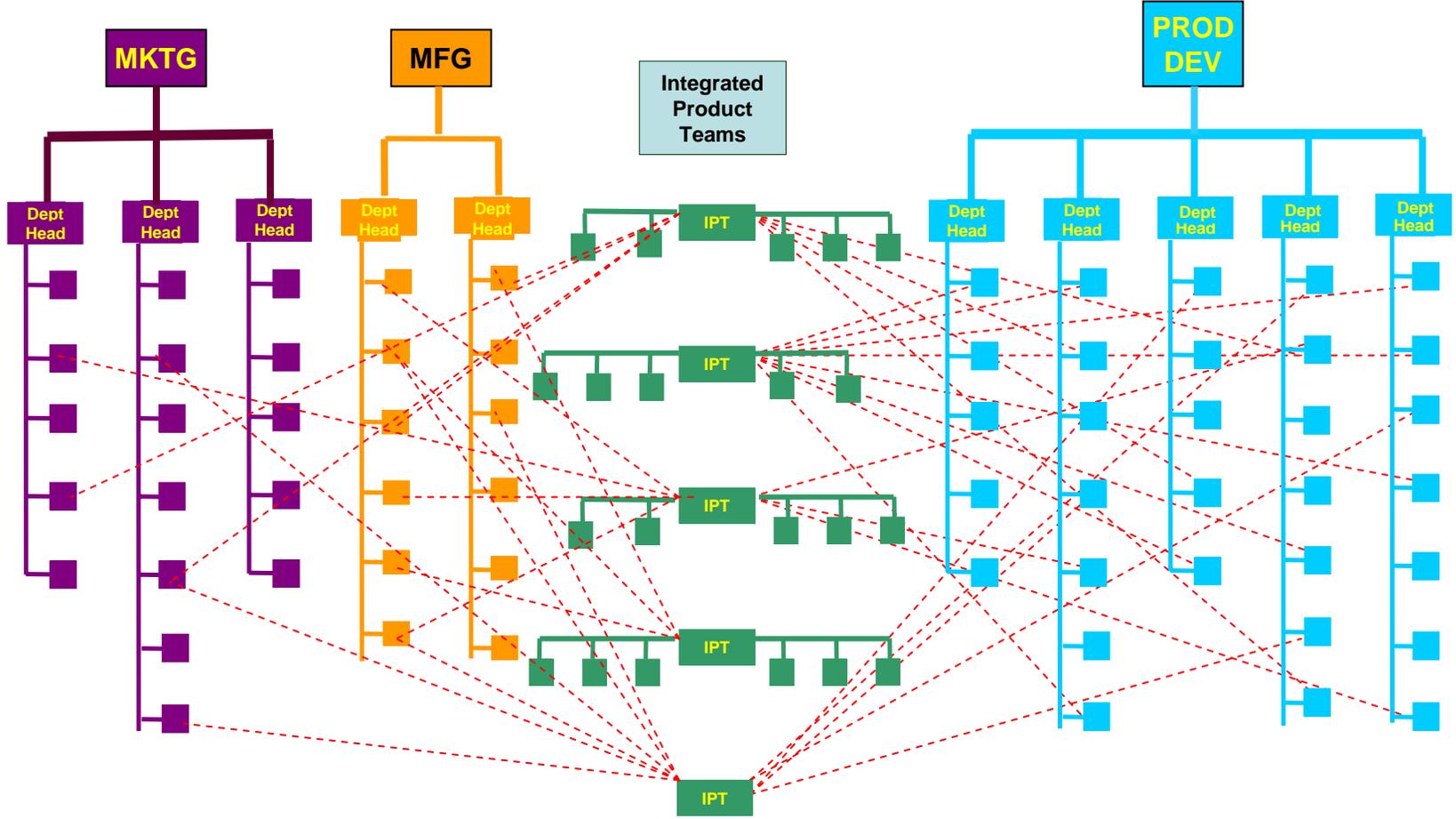


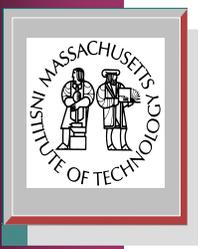
The Inevitable Conflict

- Do not be surprised by the presence of conflict in the product development matrix.
 - Conflict is designed into the matrix.
- Be worried when conflict is absent from the product development matrix.
 - The absence of conflict means that one side ‘won’.
 - The system is out of balance.



A More Complete Matrix Using Integrated Product Teams



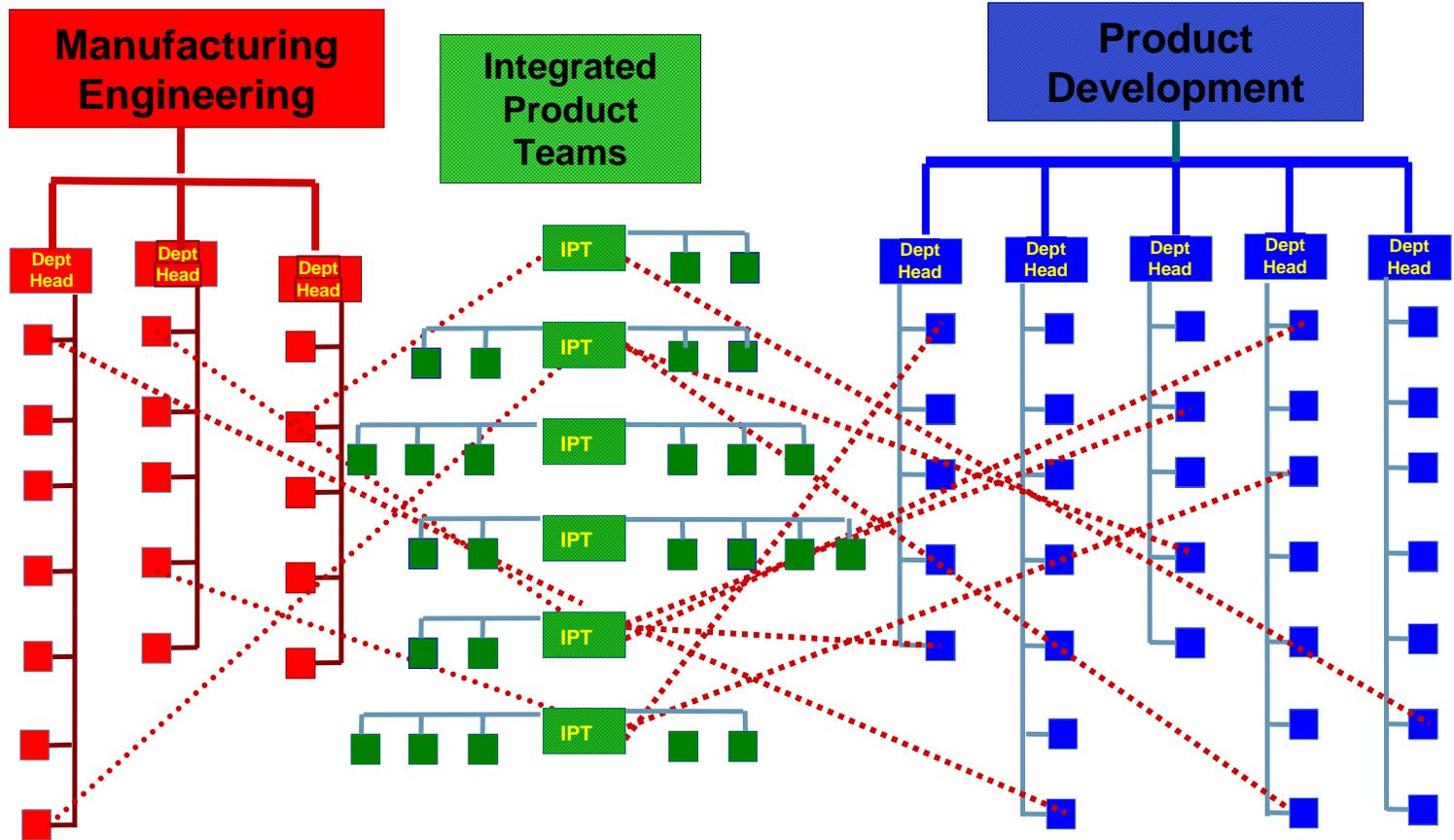


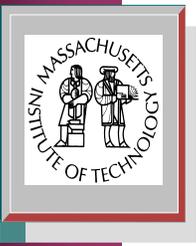
Management of Transitions

- The critical points of vulnerability in the life of a project are the points of transition.
 - Transitions can involve many parameters, for example:
 - People
 - Management
 - Leadership & leadership style.
 - Primary organizational responsibility and reporting relationships.
 - Nature of the work.
 - Types of knowledge required.
 - Physical location.
- To change all of these simultaneously is to court disaster.

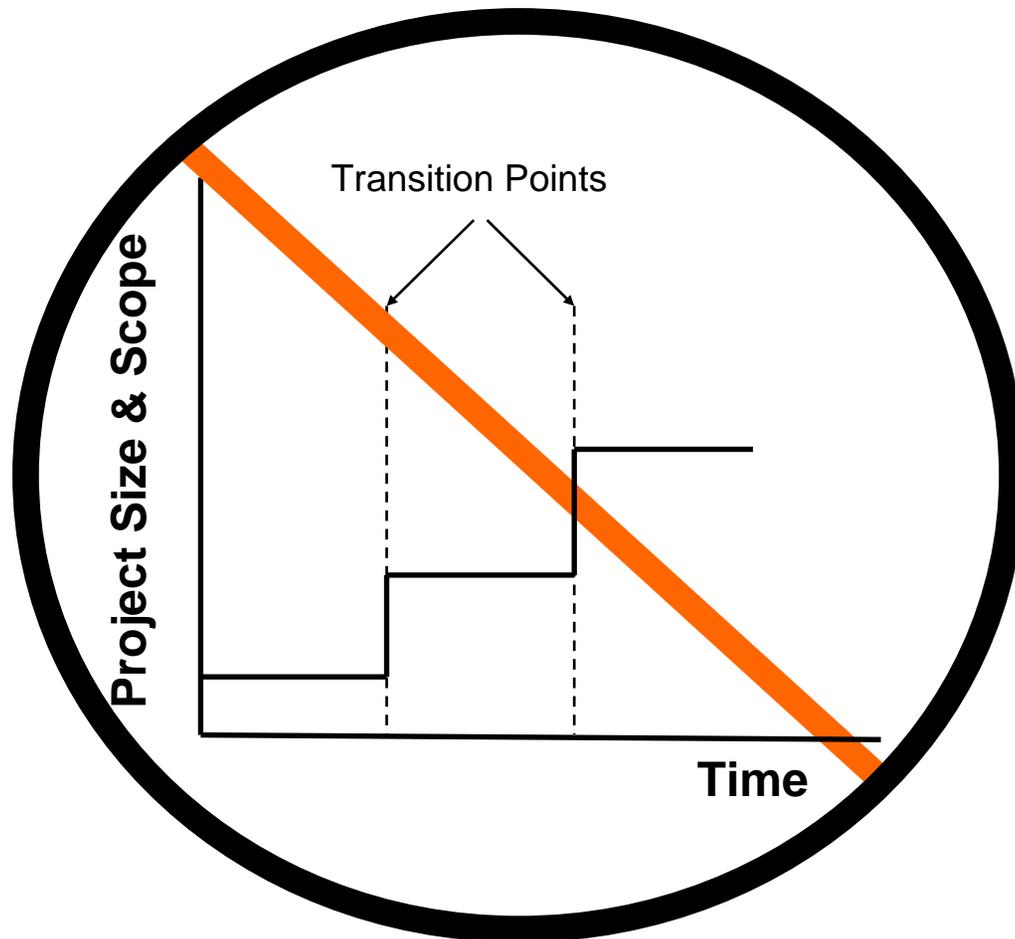


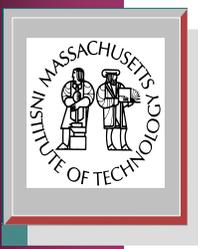
Matrix Connections to Product Development and Manufacturing Engineering





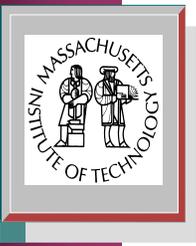
Management of Transitions II



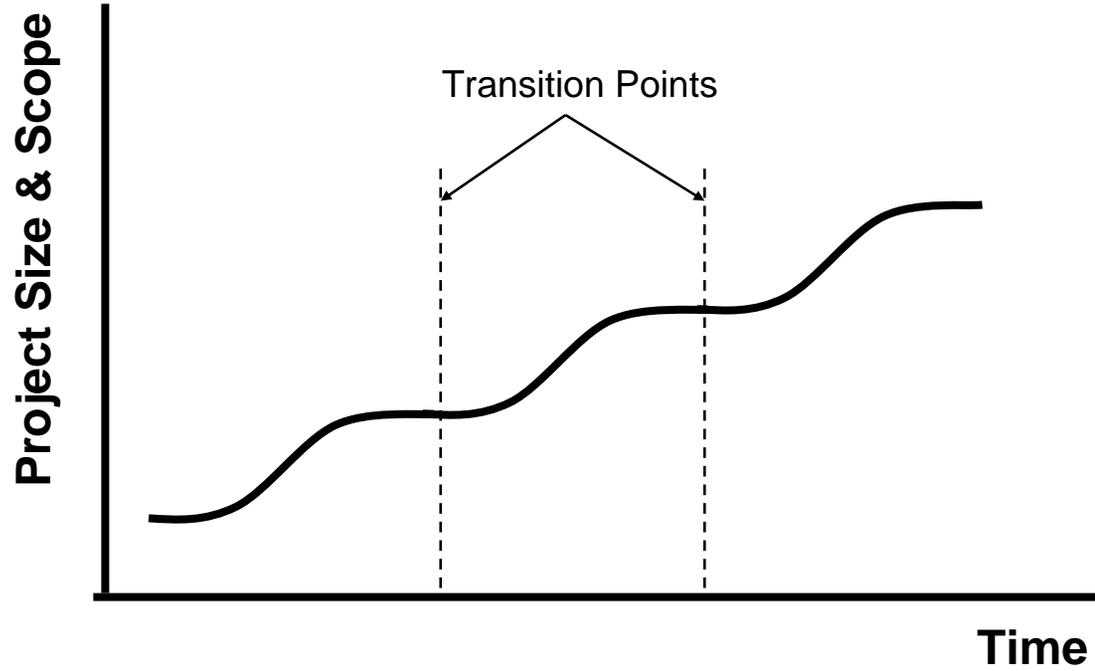


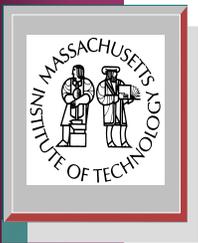
Management of Transitions IV

- Projects must be protected through transitions.
 - There must be areas of continuity to offset the areas of change.
 - Team size must grow in a gradual fashion.
 - This has implications for both organizational structure and physical architecture.
 - Both must be very flexible to allow this to happen along with a gradual transition in reporting relationship.
 - There should be an extra effort to retain a sense of ‘ownership’ among team members.
 - Avoid ‘runway management’.

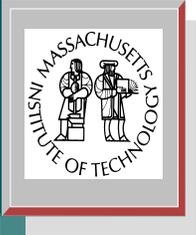


Management of Transitions III

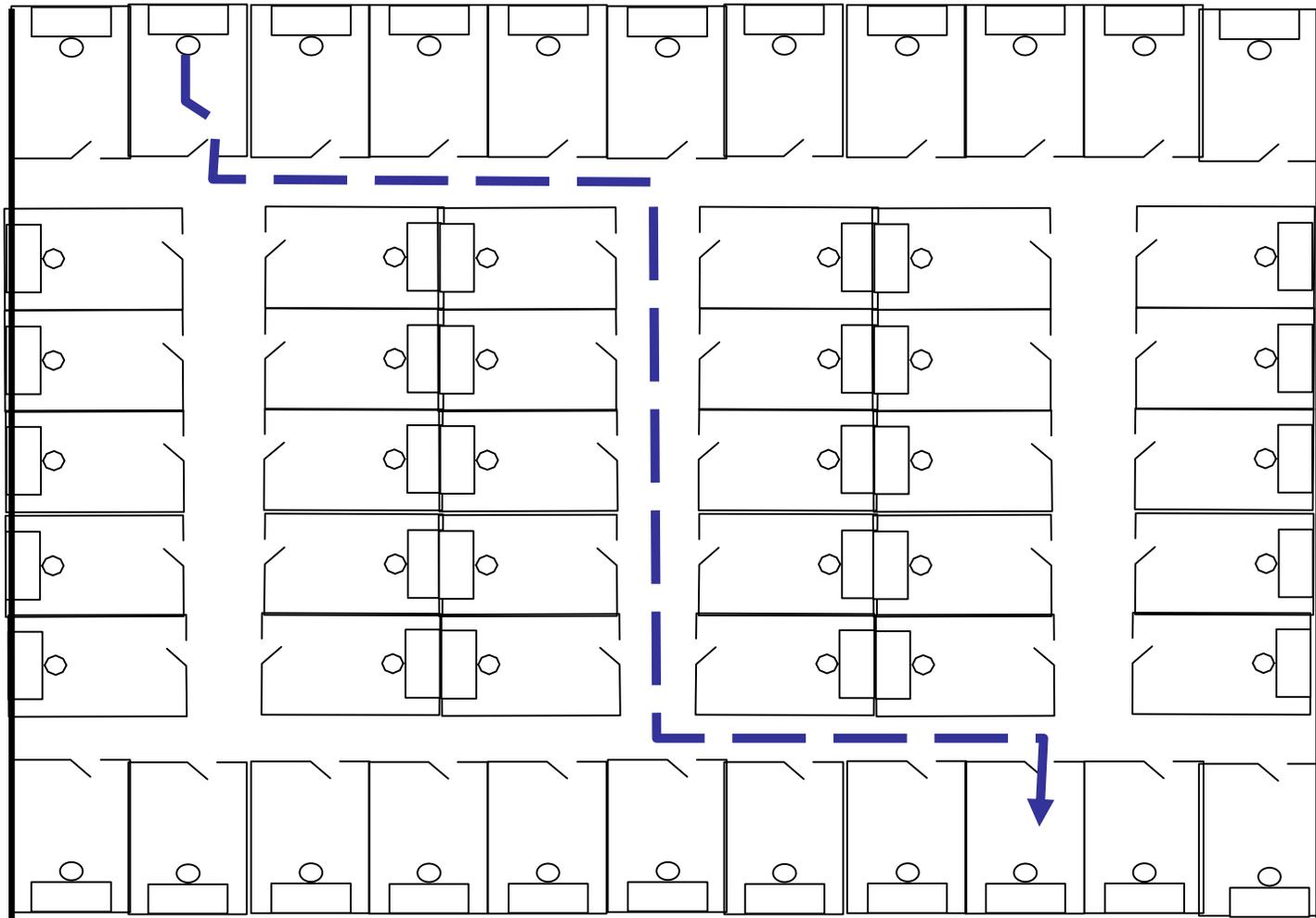




Space & Location

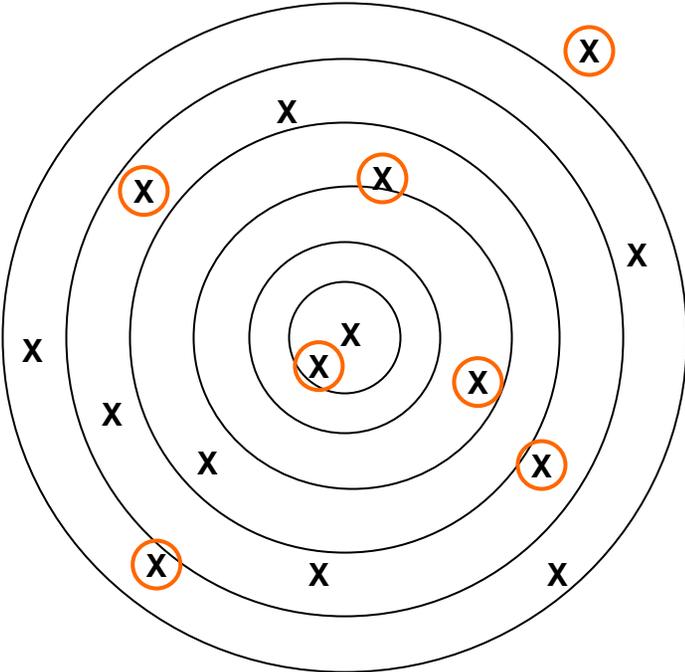


Distance Measurement



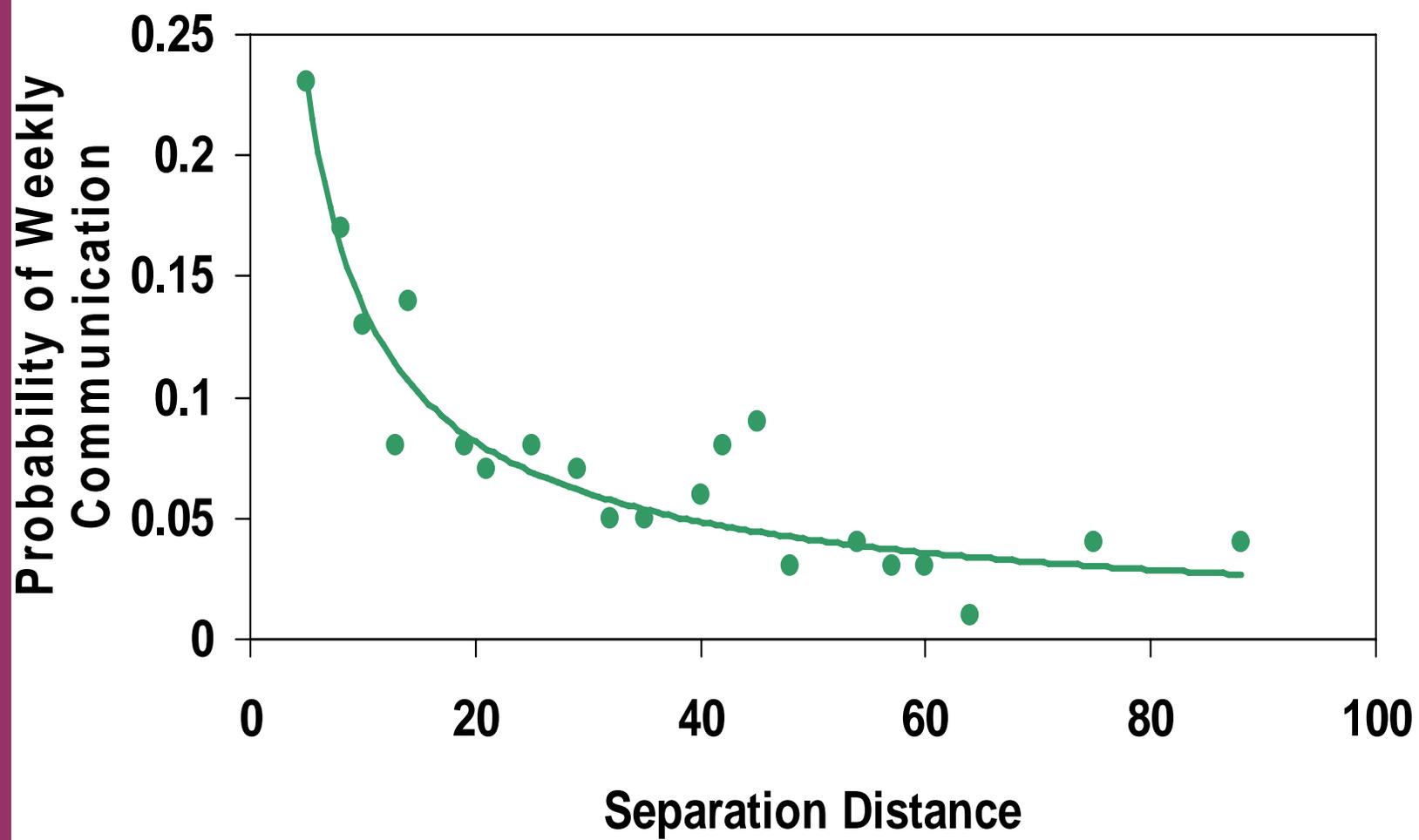


Proportion of Communication Partners as a Function of Distance





Probability of Technical Communication as a Function of Distance Between Work Stations





Probability of Technical Communication as a Function of Distance Between Work Stations

