

# Global Information Systems: Project Management

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# Project Planning

- Planning of the process
  - Distribution of actors / organization
  - Staff selection
  - Cost estimation
  - Schedule / workflow
  - Coordination activities
  - Communication tools
- Results
  - Project plan, workflow, ...
  - Staff plan: roles / competencies / effort
  - Coordination planning
  - Supporting tools: Guidelines / rules / standards



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# Project Planning: Offshore vs. Nearshore

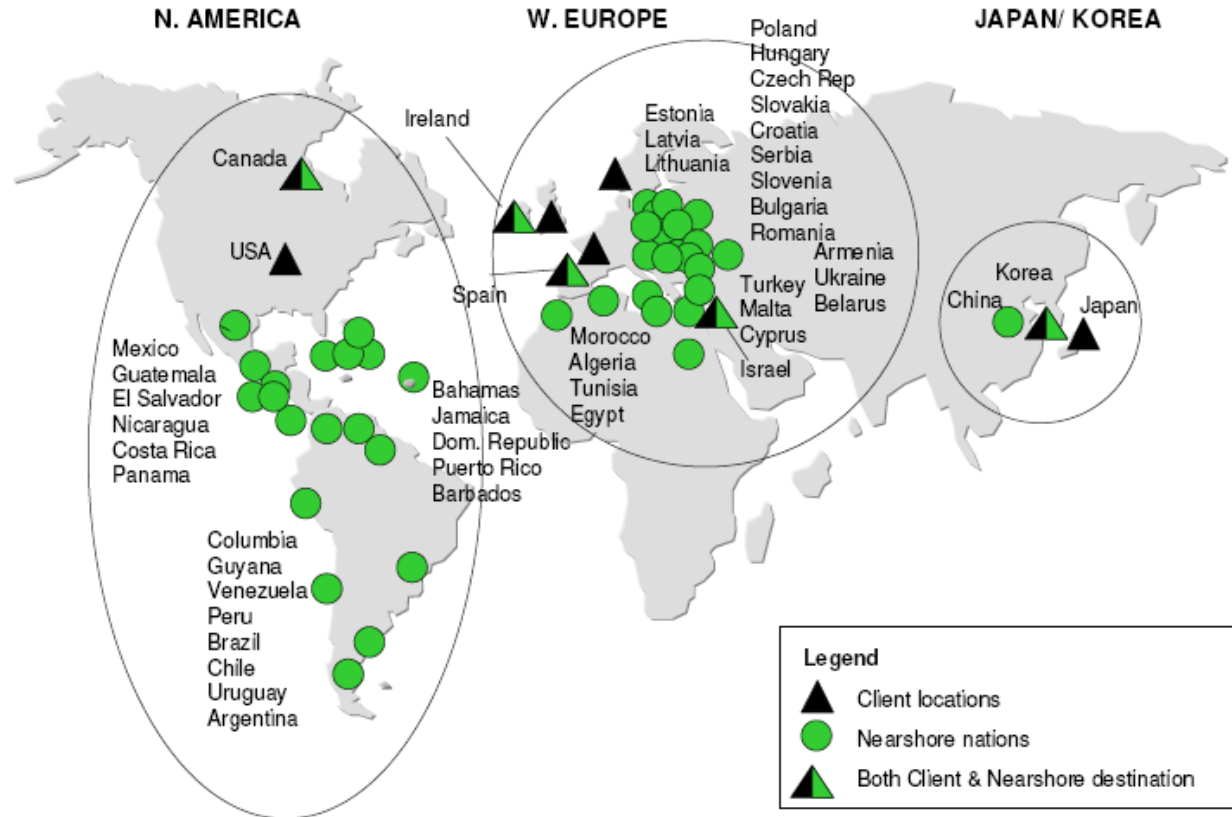
## ❏ “Offshoring”

- Assigning (parts of) a knowledge-intensive development process to a geographically remote partner
- Cost reduction
- Accelerating the production process

## ❏ “Nearshoring”

- Assigning (parts of) the development process to a geographically close partner
- Possible advantages concerning distance, language, time, culture, politics, ...

# Project Planning: Offshore vs. Nearshore (Carmel. Abbott. 2006)



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# Project Planning: Offshore vs. Nearshore

- Need to analyze and estimate...
  - Coordination
  - Cultural misunderstandings
  - Communication cost
  - Team building / training cost
  - Mistakes / prolonged life cycle
- Findings for India (Carmel, Abbott, 2006)
  - Nearshore locations provide a politically stable atmosphere
  - India is a long way away
  - India is called “distant lands;” difficulties with long distance management and cultural differences
  - India is too difficult to manage remotely; too many time zones away. Cheaper, real-time communication relative to India.
  - Nearshore better for outsourcing business-critical work
  - Nearshore offers lower costs of communication, shipping and tariffs



# Project Planning: Cost estimation (Sangwan et al., 2006)

- Calibrate cost estimation tool
- Estimate module sizes
- Allocate modules to development iterations
- Estimate code size for each iteration
- Estimate development time, effort and peak staff
  - Including coordination / communication effort
- Estimate iteration development time and average team staff size
- Estimate development schedule time
  - Including time differences
- Estimate development cost



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# Project Planning: Sample coordination activities

## Instruments to monitor and control the development process (Boland, Fitzgerald, 2004)

- Single software manager and weekly task reports
  - Reducing coordination efforts
  - Tools to assign tasks properly
- Delivery reports
  - Awareness
  - Trust
- Quarterly synchronisation meetings
- Informal meetings and instruments



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# Project Planning: Risk Management

- Risk: The possibility of suffering a loss (Sangwan et al, 2006)
- Risk lifecycle
  - Identify
  - Analyze
  - Plan
  - Track
  - Control
  - Communicate
- Risk in GSD processes
  - Coordination
  - Architecture alignment
  - Uncertainty and change



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# Risk Management: Identifying risks

- ❏ Organizational aspects / coordination capability
  - Background and skills
  - Domain knowledge of teams
  - Communication / collaboration history
  - Organizational separation / integration
  - Shared culture / language
- ❏ Organizational stability



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# Risk Management: Avoiding risks

- Monitoring and control
- Skill improvement and training
- Unified tool structure
- Management communication
- Frequent builds / prototypes
- Frequent status meetings
- Cross-team reviews
- Contingency planning: If something goes wrong...



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At the end of this phase, the following results should be ready:

- Project plan
  - Outsourcing / offshoring decisions and agreements
  - Cost planning
- Adapted process model
  - E.g., Global OpenUP
- Risk management
- Coordination planning (to be refined)



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# Summary

- ❏ Distributed development processes lead to new aspects regarding project planning
- ❏ A variety of decisions before the development process influence project success
  - Distribution of actors
  - Coordination activities
  - Management strategy
- ❏ Cost estimation must include influence factors
  - Not all factors can be estimated sufficiently in advance
  - Supporting instruments have to be taken into account
- ❏ Complex process, decision alternatives should be taken into account



# Summary (2)

- ❖ Key element: extending the process model
  - Decision making (locations, ...)
  - Cooperation partner choice
  - Staffing
  - Culture analysis and moderation
  - Coordination points
  - Supporting systems



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