

In Brief: NASA Academy of Program/ Project & Engineering Leadership

PMI Finland Chapter arranged a free member evening event on 15th of June where Ed Hoffman from NASA gave a presentation of NASA Academy of Program/ Project & Engineering Leadership (APPEL).



Around 40 chapter members participated in the event. The venue sponsor was International Institute for Learning. Ed Hoffman gave an enthusiastic presentation which activated participants for asking questions and sharing their own experiences.

Below you find summaries of the 6 main areas presented:

1. Value of NASA Academy and why it was established?

NASA Academy (APPEL) was established when NASA decided simply that they do not want to have any more project failures which are not analyzed, nor from which the organization does not learn from. Academy was established to help NASA project based organization to become a true learning organization.

Academy's mission is to support NASA's mission by promoting individual, team, and organizational excellence in program/project management and engineering through the application of learning strategies, methods, models and tools.

Academy is responsible of development and maintenance of a comprehensive program/project management and engineering competency model, training curriculum, career development framework, consulting services for project management teams and knowledge sharing strategy & knowledge sharing tools.

2. NASA Project Management competence areas

Academy has defined 10 Project Management competence areas which are on high level defined as competence groups under which belong several competences:

- 1. Project Conceptualization*
- 2. Resource Management*
- 3. Project Implementation*
- 4. Delivery, Operation, and Closeout*
- 5. Project Control and Evaluation*
- 6. NASA Environment*
- 7. Human Capital Management*
- 8. Safety and Mission Assurance*
- 9. Professional and Leadership Development*
- 10. Knowledge Management*

This competency framework is the basis for building the career framework and training curriculums.

3. Knowledge sharing strategy & tools

Academy's knowledge sharing strategy has the following key objectives:

- *To capture and transfer knowledge from seasoned program/project managers and engineers across the agency*

- To cultivate a *learning organization* of reflective practitioners
- To facilitate *open communication and dialogue*

Academy has developed several tools and concepts for strengthening organizational learning through knowledge transfer. Below are listed few of them:

Knowledge sharing forums:

- Invitational knowledge sharing forums and workshops
- PM Challenge (Annual project management conference)

Magazines & newsletters:

- ASK Magazine
- ASK the Academy e-newsletter

Case studies (Success stories – best practice project management cases)

- 28 NASA cases sponsored/developed

4. Project Manager and job effectiveness

NASA has “4 A” model which describes 2 personal and 2 interpersonal dimensions that affect to Project Manager’s job effectiveness. This model is based on interviews of NASA own personnel and how they see what is needed to become project manager expert at NASA.

Ability: recognize expertise, see big picture, understands causes, natural aptitude, learn from experiences

Attitude: motivation, willing to collaborate, listening, intellectual curiosity, promote healthy context

Assignments: go beyond comfort zones, opportunities to make mistakes, hands-on, self-confidence, increasing responsibility

Alliances: mentors, water cooler conversations, recognition, teamwork, peer network

When measuring Project Managers effectiveness and success in managing his/her projects, all these dimensions are important factors that should be taken into account. According to Ed, from personality point of view, some people are more suitable to project manager job than others, and all these dimensions should be considered when recruiting project managers

5. NASA Academy services to support continuous learning of the technical workforce on a) individual, b) team and c) organization level

Academy has developed several methods for supporting continuous learning on different levels. On individual level Academy makes sure that there is a training curriculum and career development framework in place. On team level Academy supports directly project team development by offering several services including team online assessments, mentoring & coaching services, workshops and team building support. These team level services have been recognized to be valued more and more and project teams are nowadays actively seeking for support.

At organization level Academy provides different forums, case studies, publications and communities of practice (ref. to knowledge sharing tools).

6. NASA career development approach

NASA has defined 4-level career development framework for project management practitioners. They have defined Entry level (team members), 2 Mid-career levels (small project manager and large project manager) and Executive level (program managers and large projects manager).

Academy has defined training curriculum for each of the career levels which all include hands-on assignments. Separate training curriculums are needed as different career stages have different requirements and learning is very much contextual. At executive level and mid-career level the persons have more knowledge sharing responsibilities through mentoring programs and active participation in different forums.

As a personal experience this presentation gave “light, inspiration and motivation” by clearly showing that we are going into right direction within my company. We are privileged to learn from such companies like NASA who are willing to share their company learning and knowledge sharing methods with other companies.

Thank you Ed Hoffman and NASA,

Link to NASA Academy (APPEL) homepage:

<http://www.nasa.gov/offices/oce/appel/home/index.html>

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