Alta Scuola Politecnica
Prof. Stefano Ceri
Director, 2010-2013
Milano
Torino
PoliMi and PoliTo are the largest and oldest technical universities in Italy. Altogether, they award each year

- about 25% of the Engineering BSc’s and
- about 40% of the Architecture and Design BSc’s in Italy.

They are located in Lombardia and Piemonte, two close Italian regions among the most advanced and industrialized in Europe.
The five w’s of ASP

- **WHEN** -- Established in 2004, two-year study cycles, 7th cycle starting in 2011
- **WHERE** -- PoliMi and PoliTo in joint venture (an asset of the MI-TO framework)
- **WHAT** -- Additional parallel track to master studies
- **WHO** -- Selects 150 talented students per year, among the applicants to the master programs in Architecture, Design and Engineering
- **WHY** -- Emphasize horizontal skills, management of complexity, working in teams
From abroad (~ 25%) ➔ Internationalization Services

From PoliMi+PoliTo BSc ➔ Invitation (top 5-10%)

From rest of Italy ➔ CALL

MOTIVATION letter + interview
**Where do ASP students come from?**

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Distribution of ASP Students based upon their School in the 7 Cycles (2004-2011)
Average BSc mark of Italian ASP students
>28.5/30
(PoliTo/PoliMi average ~ 25.4/30)

Average fraction of Italian ASP students with 110 or
110L BSc degree ~ 87%
(PoliTo/PoliMi average ~ 14%)
• Supporting students in designing solutions to complex problems, coping with dynamic environments which require:
  • cognitive capacities and aptitude to learning
  • capacity to manage organizational processes
  • awareness of the interests and the interactions that take place within the specific context
  • flexibility in adapting to the cognitive processes used during the design process
  • talent for interpersonal relations
Innovation and its impact on society

1. Innovations: Why and for whom? (Prof. Massimiano Bucchi, Prof. Costanzo Ranci)
   - To interpret the socio-technical context in which innovation takes place and develops
   - To understand how values and normative cultures shape and guide innovation and technical design

2. Design for Social Innovation (Prof. Ezio Manzini)
   - To introduce the problems of innovation in a social and economic context
   - To discuss the relevance of user involvement in the design process
   - To discuss design thinking and creativity for innovation
3. **Management of innovation** (Prof. Mario Calderini)
   - To develop the capacity to perform strategic analysis and project management
   - To develop skills and experience in group work, and external communication capacities

4. **Decision making** (Prof. Giovanni Azzone, Prof. Bruno Dente)
   - To teach a theoretical framework and the analytical instruments to design and manage the decision making processes involved in the realisation of complex projects in the public and private sphere
5. Global Change and Sustainability (Prof. Marino Gatto)
   - To introduce the students to the problems of global change
   - To outline the possible policies and technical advancements that could shape sustainability paths
   - To make the students understand their social commitment to bring the ideas of social, economic and environmental sustainability into their professional life

6. The Dynamics of Creativity for a Territory in "Stand-by" (Prof. Agata Spaziante)
   - To discuss how creativity can help to face the on-going situation of a territory in “stand-by”.
   - Stimulate new aims, new images, new paths and new methods able to support the incoming cycle of “development without growing”.

Aspects of complex systems design
ASP projects enable concrete experimental activity on broad and relevant themes and problems. They are:

• system-level
• interdisciplinary
• focused on:
  - problem-setting within a complex situation
  - innovation (i.e. bridging technology with its applications)
  - conceptual design and feasibility analysis
• require both:
  - disciplinary knowledge (coming from the Laurea Magistrale background of each student)
  - interdisciplinary knowledge (coming from ASP courses)
• they are different from a Laurea Magistrale thesis.
Each project has **external organizations** that acts as the “client” of the project:
- Companies
- Public administrations
- Associations representing industry or services (e.g. chambers of commerce)

- Each project has 2-3 teams, with about 6 students per team
- Team members are chosen with different backgrounds (LM, Mi/To, nationality)
High quality program is unique contribution to interdisciplinary education; promotes excellence; creates enthusiasm and engagement.

Creates a new kind of graduate, best equipped to tackle the problems of tomorrow.

Interaction between PoliTo and PoliMi is major achievement.

High quality students, happy and enthusiastic about the program.
• **Created** officially in June 2007

• **Mission:** facilitate *networking* among ASP Alumni, support the professional and personal development of ASP Alumni, enhance ASP visibility

• **Activities**
  • **Alumni Days/Events** *(2/year)*
  • Newsletter
  • Placement poll
  • Tutoring
  • Many other opportunities of interaction with ASP students