

 **HUNGARIAN NATIONAL WATER TECHNOLOGY PLATFORM**

1st Austrian National Young Water Professionals Conference


Role of the YWPs in the implementation of the R&D strategy of urban water management in Hungary

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 **NKTH**

9-11 June, 2010- Vienna, Austria

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Introduction- aims of the platform

- Hungary's EU accession
→ supported R&D projects
↔ ad hoc R&D strategies →
lack of concept in the field of
urban water management
- Drivers (increasing water stress
and cost, urbanization, extreme
events, etc.) → need for a
strategy forming think-tank



Establishment of the national technology platform in order to
develop the R&D priorities based on widespread professional
consensus

Main goal: providing a strategic basis for the R&D demand
and strengthening towards the realization of the sustainable
and integrated urban water management.

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Introduction- activity of the platform

- Coordinating institute: BME
- Project manager: Dr. Ernő Fleit, Professional chief expert: Dr. László Somlyódy
- STRATEGIC RESEARCH AGENDA (2009) and IMPLEMENTATION PLAN (2010)
- Around 80 members, 7 working teams:

The diagram consists of seven colored circles arranged in a ring, each representing a working team. The circles are: 1. Drinking water (blue), 2. Advanced municipal WWTP (dark green), 3. Small settlements (purple), 4. Climate changes (light blue), 5. Public works (grey), 6. Urban, environmental and social issues (green), and 7. Industrial waters (red).

Distribution of the contributor organizations in the activity of the platform

| Organization Type | Percentage |
|---------------------------------------|------------|
| Educational and research institutions | 33% |
| Private sector | 49% |
| Governmental organizations | 10% |
| Associations/councils | 8% |

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Method of the formation of Strategic Research Agenda

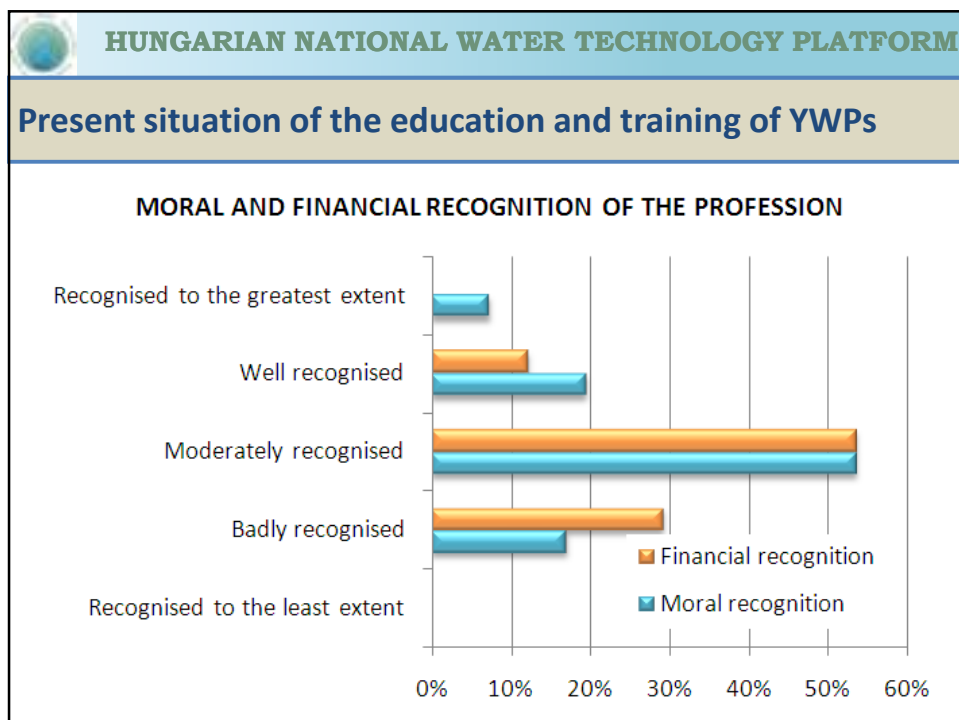
- questionnaire surveys among the stakeholders
- interview with Hungarian experts of the urban water management sector
- activities of the HU NWTP's working teams: brainstorming discussions, SWOT analyses, identification of future task and the exterior, global and local driving forces, development and usage of scenarios


- DIAGNOSIS (based on the SWOT analyses)→
- PROGNOSIS (for 3 scenarios: average, poor and rich) →
- TASKS and their PRIORITIES (for different time horizons)

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Evaluation of Hungarian R&D&I activity in urban water management

- International integration and the opening of the market → supported R&D achievements ↔ no professional critics or supervision
- Collapse of domestic manufacturing industry → dominance of international companies → adaptation of foreign machinery and automatics → no competitive Hungarian technologies ↔ absence of adequate knowledge and vocational training
- No research institute committed to the urban water management
- Lack of experienced professionals, chemical implements and model devices
- Is this profession financially and morally recognized?

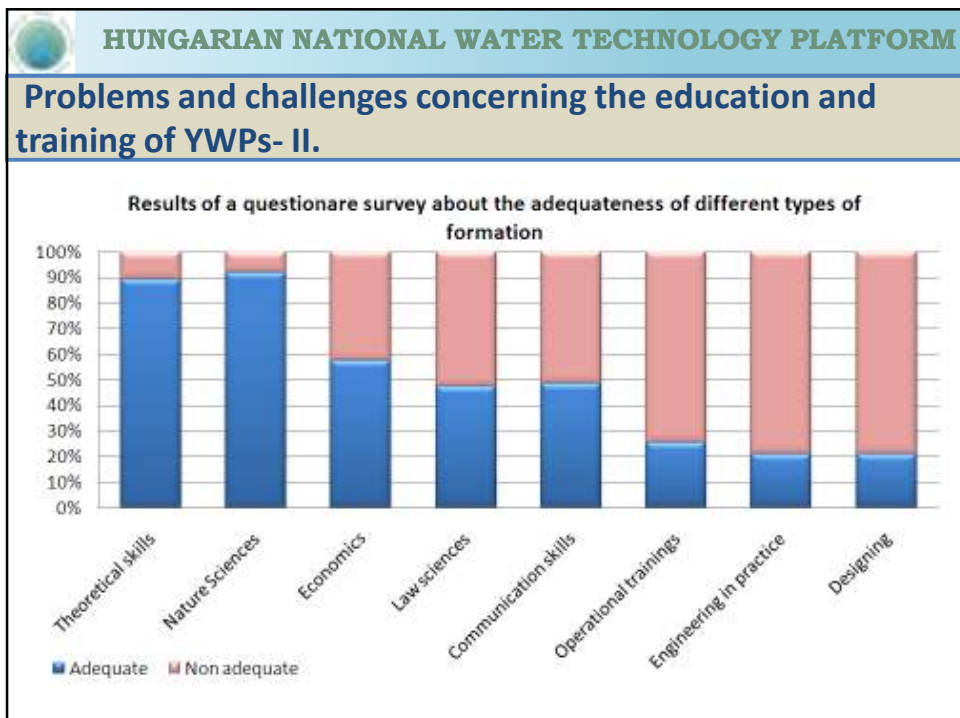



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Problems and challenges concerning the education and training of YWPs- I.

Projects generated by the close-up oriented EU support - no Hungarian professionals will be available:

- Poor knowledge gained in the high school,
- Most institutes of elementary and middle education on water have ceased
- Wrong adaptation of the Bologna System- basic knowledge with BSc studies and no further training
- Burden professors due to the Bologna System
- Brain drain
- Absence of skilled workers and technicians endanger the operation of public water services in the future






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Conclusions

- Serious **absence of professionals** and the situation of higher education and vocational training in the field of urban water management is a current concern
- Some task identified by the Platform should be implemented in 15-25 years **by present YWPs**
- The elder generation has paramount role in training of **appropriate posteriors**
- Development of a **long term educational strategy** would be essential
- Improvement of national and international **scientific relationships** and the increase of the **mobility** of young professionals



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Foresights

- An independent committee delegated by the President of the Republic of Hungary has identified the main problems and challenges in the education
- A public forum about the same topic in the water sector has been initiated by the Committee of Water Management Science of the Hungarian Academy of Science
- First steps towards a new Msc curriculum (Water supply and Sanitation) in the frame of Water Management Committee of the Chamber of Engineering
- Preparation of a scientific „club” for YWPs under the umbrella of the Hungarian Water Utility Association

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Thank you for your attention!

