



# Tomsk Polytechnic University

## **Change of the University Management System for Enhancing the Employability of Graduates**

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## Change of the University Management System for Enhancing the Employability of Graduates

### Challenges to the Universities:

- changing requirements for the graduates of the universities and corresponding changing requirements for content and methods of teaching;
- changing financial system at the universities;
- enhancing transparency of the higher education system;
- changing management at the universities.



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### The Tomsk Polytechnic University:

- is the oldest technical university in the Asian part of Russia (founded in 1896);
- takes the seventh position in the list of Top-10 Russian universities;
- has 23,000 students and 5,000 staff members;
- has more than 150,000 alumni, with about 300 winners of the highest Russian and international scientific awards among them;
- 17 other Russian universities were founded on the basis of the various schools and departments of the TPU;
- was included by the order of the President of the Russian Federation of April 2nd, 1997 into the "*List of the most valued objects of the Russian cultural heritage*";
- in 2009 became the status of the Russian National Research University (29 universities only among more than 1500 Russian universities have this status).



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### Peculiarities of the graduates of the Russian technical universities

1. Assumption that a specialist receives basic education only once.
2. Unconcern about effective use of natural resources.
3. Little attention to the demands of the consumer for product design and manufacturing.
4. Forced placement of graduates.



## Change of the University Management System for Enhancing the Employability of Graduates

### Exploration of professional competences

1. Knowledge in natural sciences and mathematics.
2. Basis knowledge and up-to date information in particular professional area.
3. Analytical skills for stating technical problems as well as for finding ways for their resolution.
4. Skills of applying of the modern design methods in engineering.
5. Skills of working with the reference information.
6. Skills of technical experimenting, analyzing of the experiment results, and making conclusions.
7. Ability to interdisciplinary research and engineering.
8. Knowledge of engineering practice.
9. Knowledge of ethical, legal, economic, and ecological issues in particular professional area.



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### Exploration of business competences (manager's qualities)

1. Team work ability
2. Time management
3. Negotiation skills
4. Knowledge of foreign languages
5. Competence in handling computers
6. Business communication skills
7. Presentation skills





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### **Divergence:**

**Academics – emphasis on professional competences**

**Employers - emphasis on business competences**



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The peculiarities created specific organizational culture within a university which was not oriented to work in competitive (market) conditions.

Being trained in uncompetitive conditions students were uncompetitive (unemployable) in conditions of the free labor market.

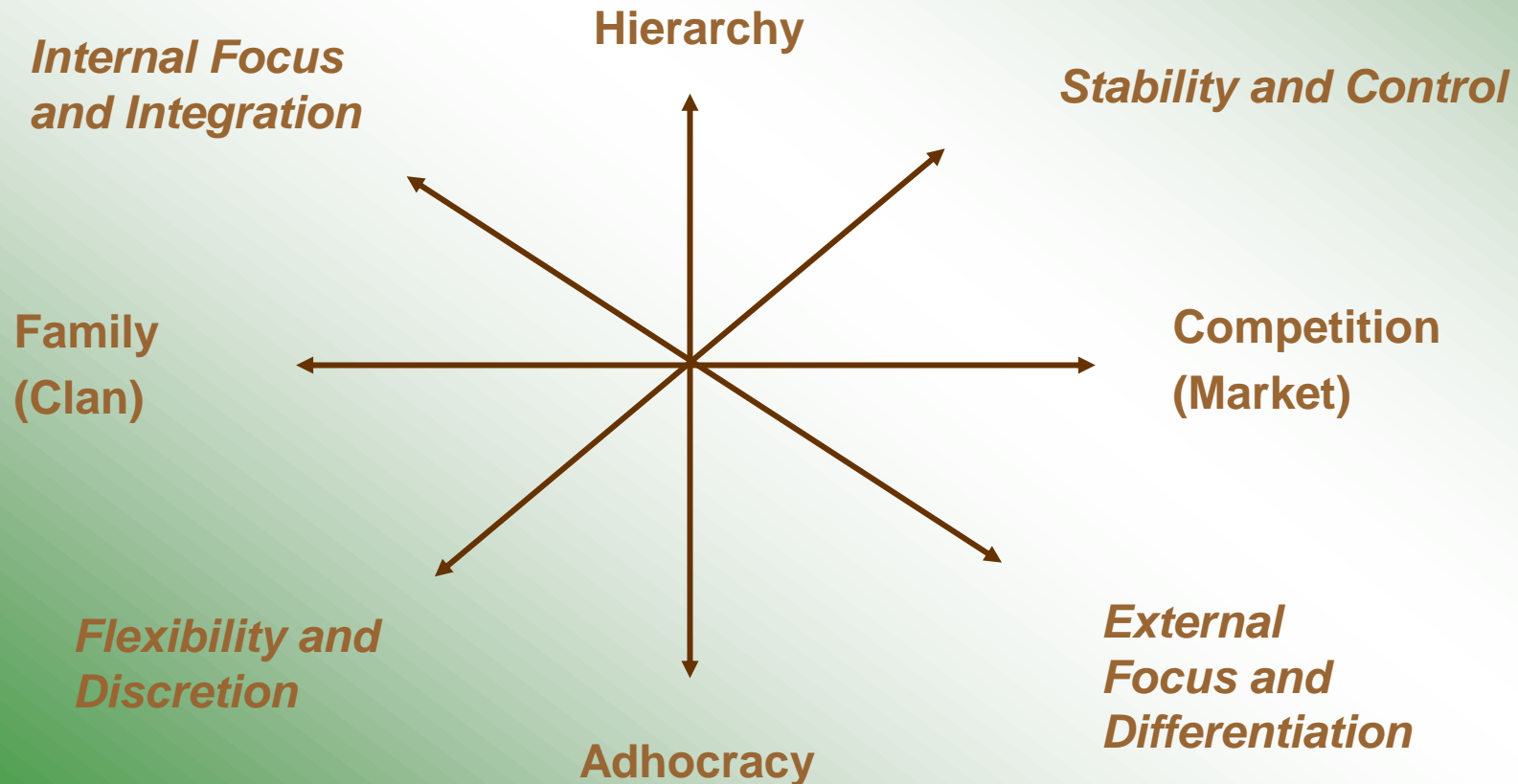
**Conclusion:**

In order to train employable competitive graduates the university have to change its organizational culture.



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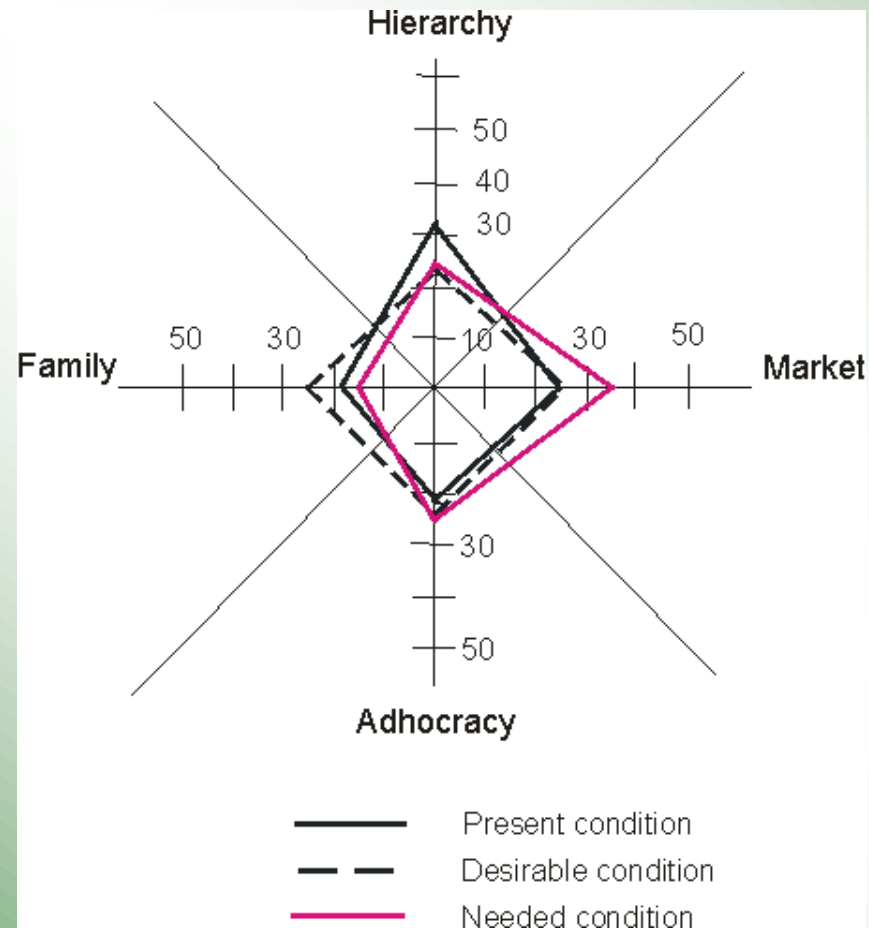
## Method of study: *Organizational Culture Assessment Instrument (OCAI)*





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## Organizational profiles for TPU





# Change of the University Management System for Enhancing the Employability of Graduates

## Hierarchy

## Family

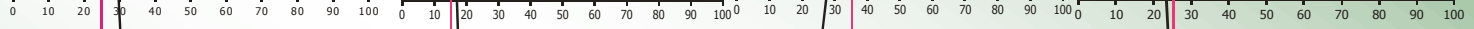
## Market

## Adhocracy

University as a whole



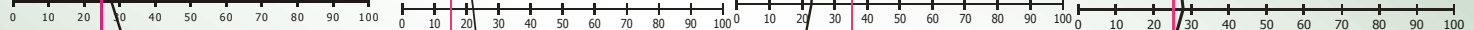
Management system



Leadership



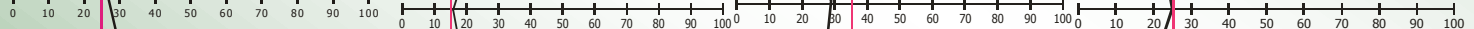
Goals



Uniting forces  
("organisational glue")



Effectiveness



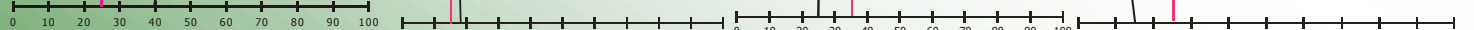
Motivation



Decision making



Conflict resolution





## **Change of the University Management System for Enhancing the Employability of Graduates**

**Examples of the changes that were introduced at the university:**

- 1. Candidate Pool.**
- 2. Change of the motivation system.**
- 3. Creation the special training program “Management in Higher Education”.**



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**Thank you!**