

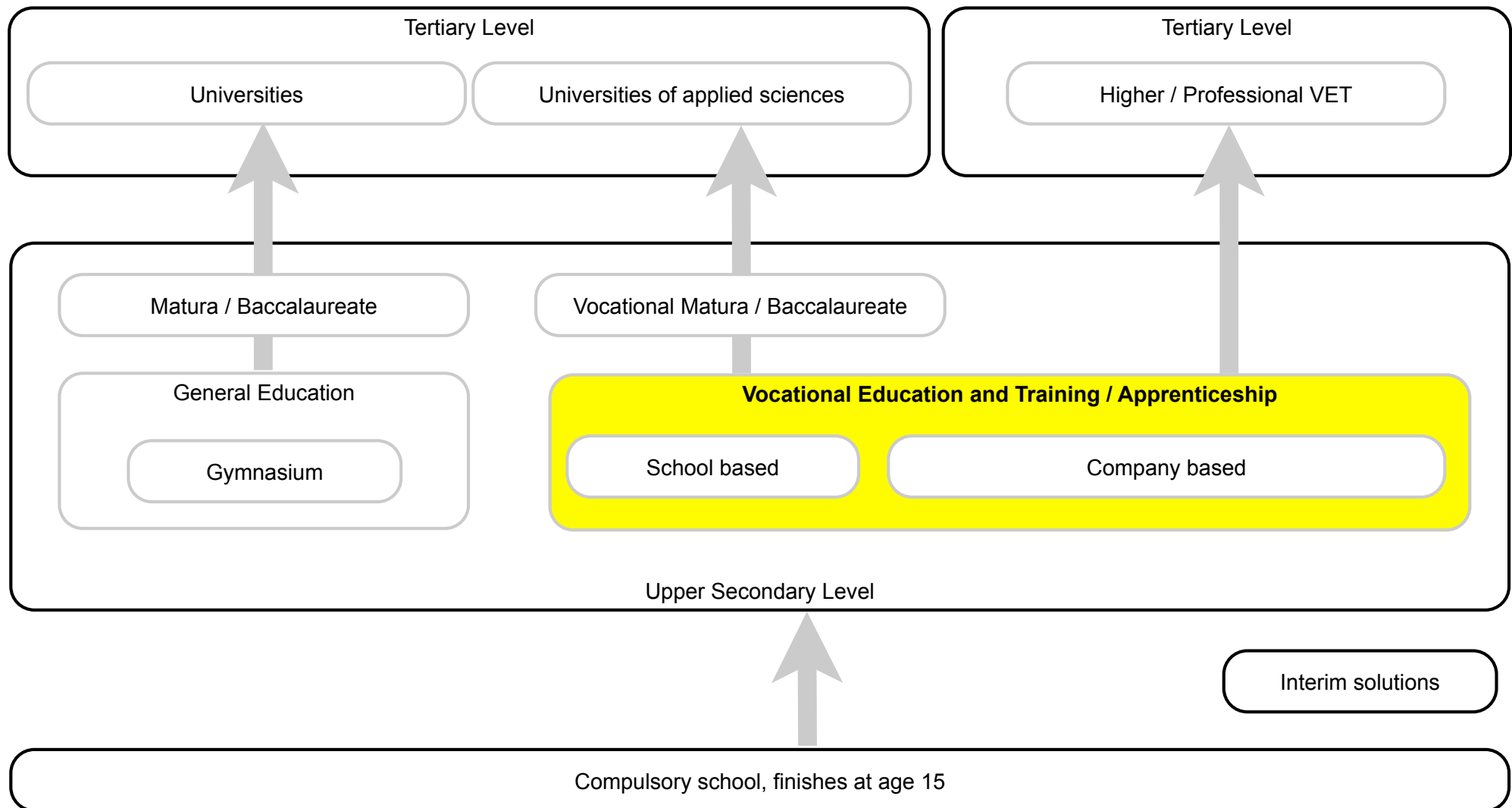
# **Workplace as a learning place: Correlates and predictors of the apprentices' perception of the workplace as a learning place. An analysis of the first three years in apprenticeship**

Educational Pathways on the upper secondary level in Switzerland.

Transition from Education to Employment: TREE-panel study.

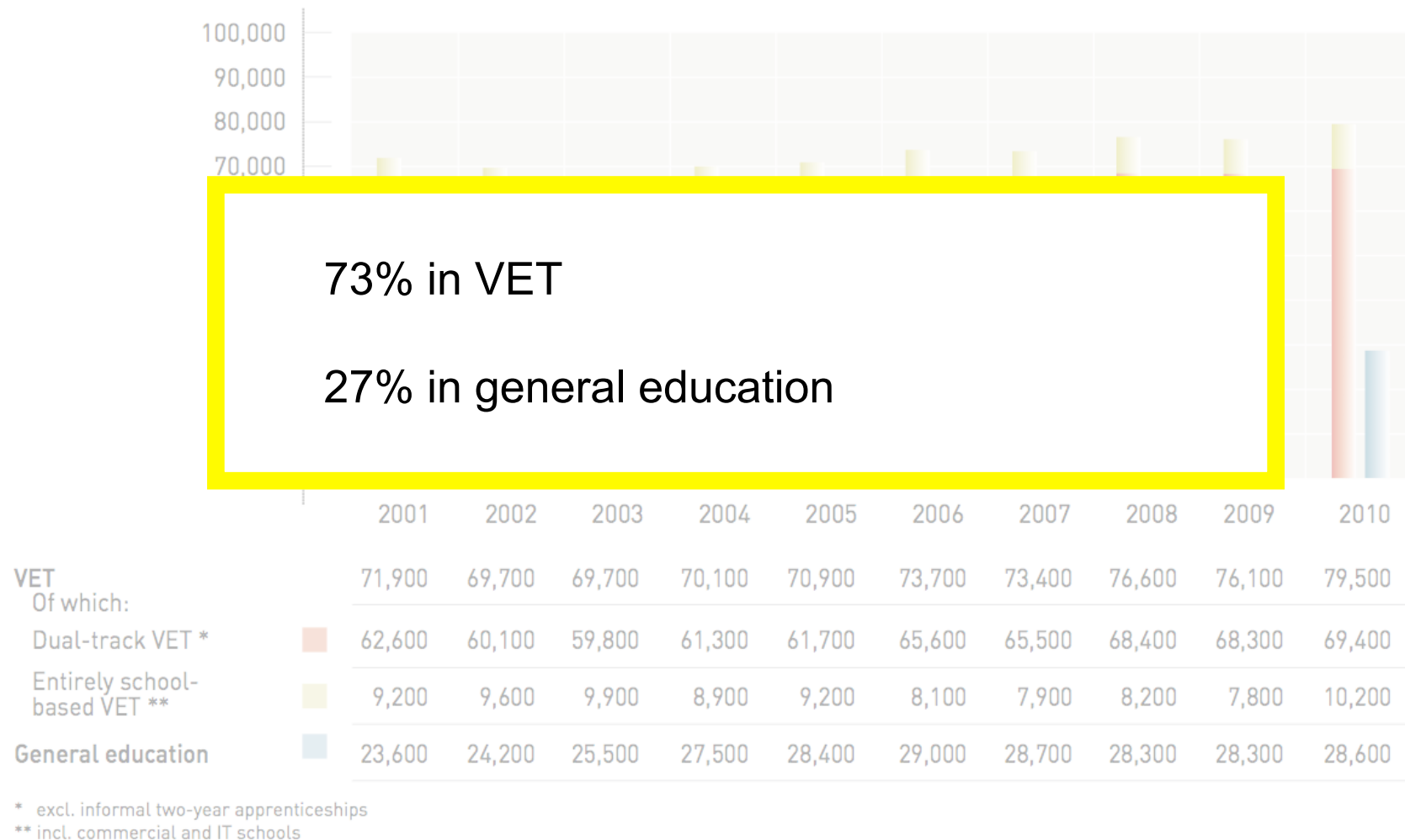
Correlates and predictors of the workplace as learning place.

Dr. Christof Nägele



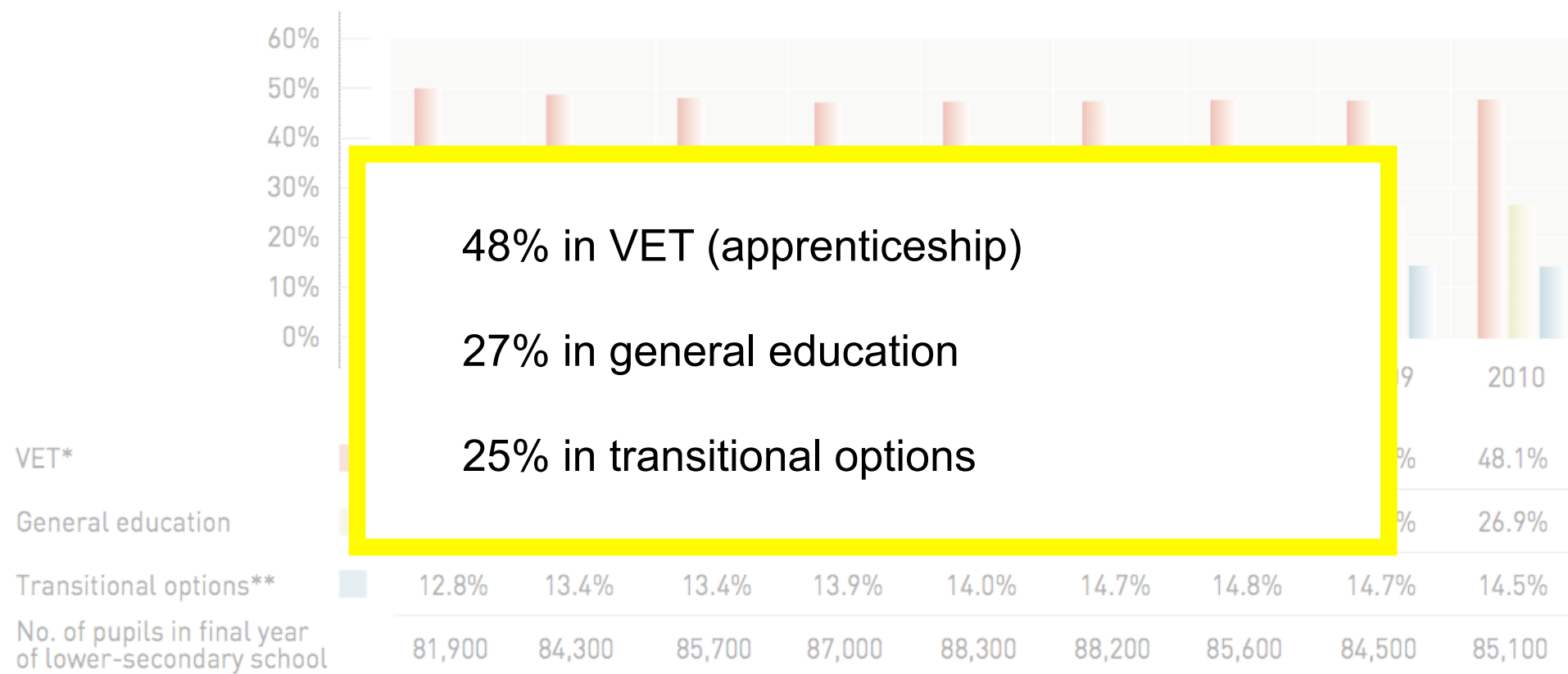
Stalder, B. E., & Nägele, C. (2011). Vocational education and training in Switzerland: Organisation, development and challenges for the future. *Bergman, MM; S. Hupka-Brunner; A. Keller*, 18-39

## Enrollment in upper secondary level



State Secretariat for Education, Research and Innovation. (2013). Facts and figures. Vocational and professional education and training in Switzerland. Bern, CH.  
<http://www.sbfi.admin.ch/dokumentation/00335/00400/index.html>

## Enrollment immediately after compulsory education

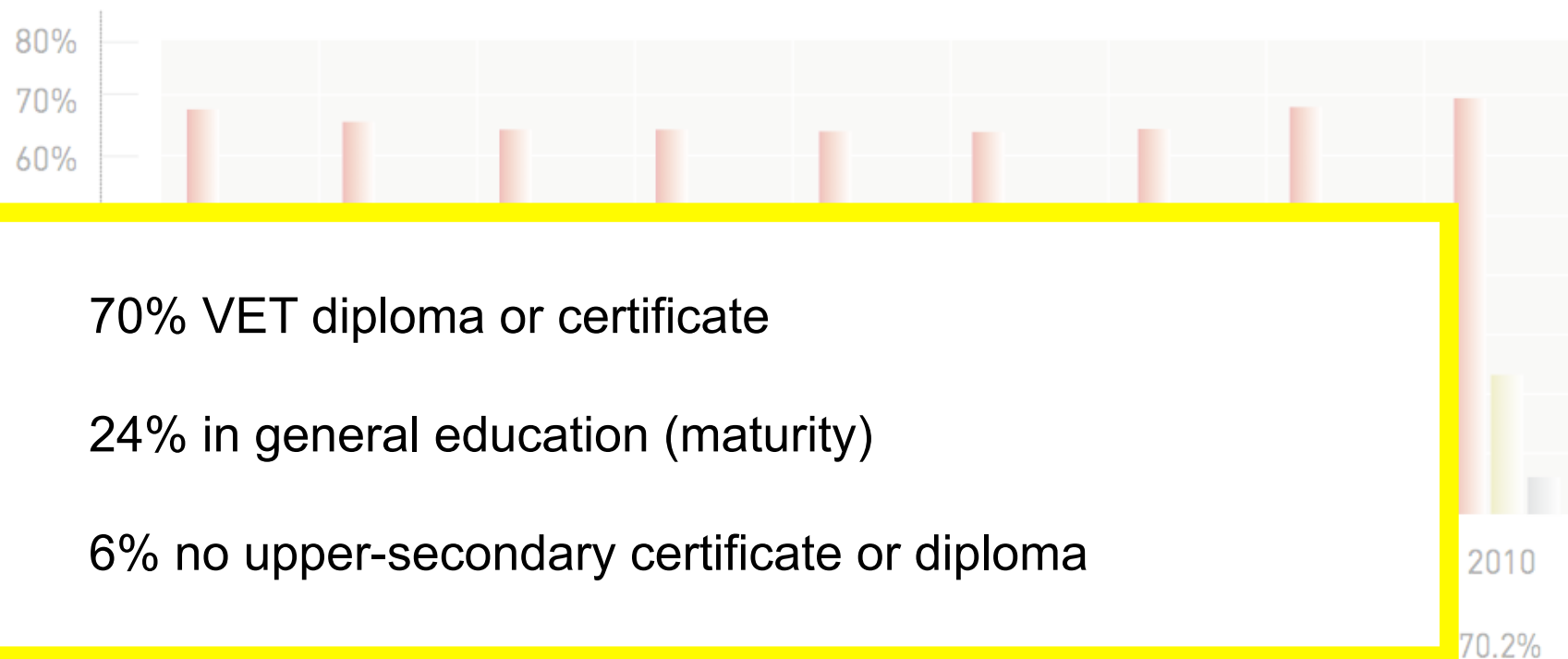


\* incl. informal two-year apprenticeships

\*\* Transitional options include 10th school year [i.e. bridge-year courses], pre-apprenticeships and preparatory courses

State Secretariat for Education, Research and Innovation. (2013). Facts and figures. Vocational and professional education and training in Switzerland. Bern, CH.  
<http://www.sbfi.admin.ch/dokumentation/00335/00400/index.html>

## Upper-secondary level diplomas, all young people



VET

General education

No upper-secondary  
level qualifications

|  |       |       |       |       |       |       |       |       |       |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|  | 22.5% | 22.1% | 21.7% | 22.2% | 23.2% | 23.0% | 23.4% | 23.0% | 23.5% |
|  | 9.2%  | 11.7% | 13.4% | 13.0% | 12.2% | 12.4% | 11.7% | 8.3%  | 6.3%  |

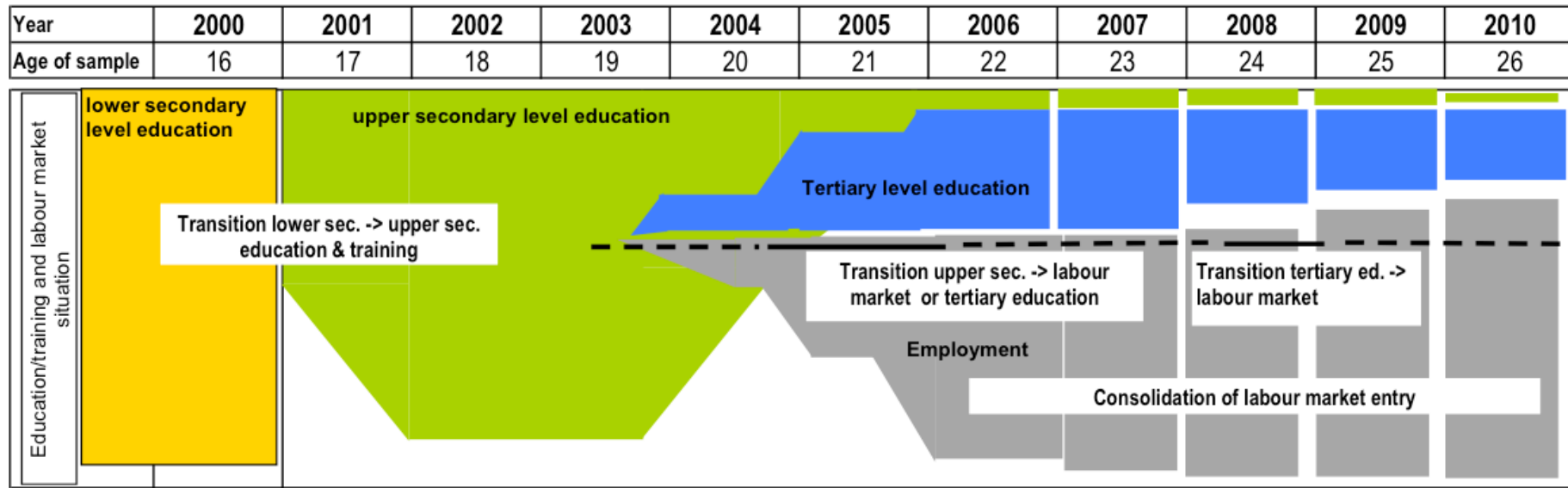
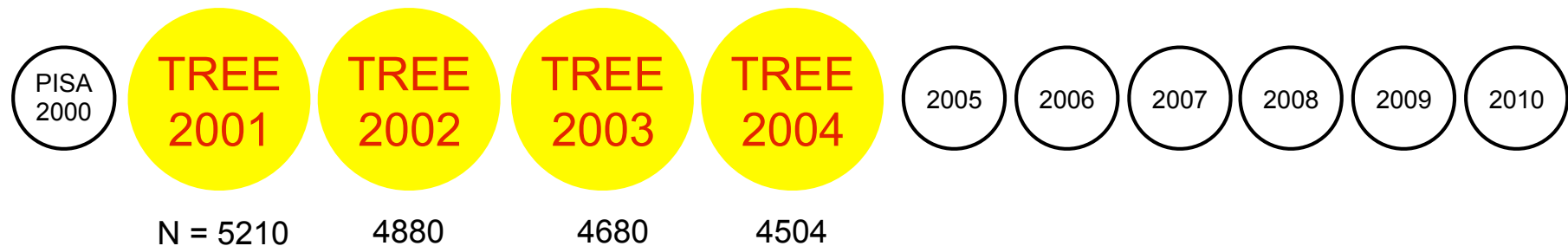
## One mission, three partners - steering

|                                    |                                      |
|------------------------------------|--------------------------------------|
| <u>Confederation:</u>              | Strategic management and development |
| <u>Professional organizations:</u> | Curricula and apprenticeships        |
| <u>Cantons:</u>                    | Implementation and supervision       |

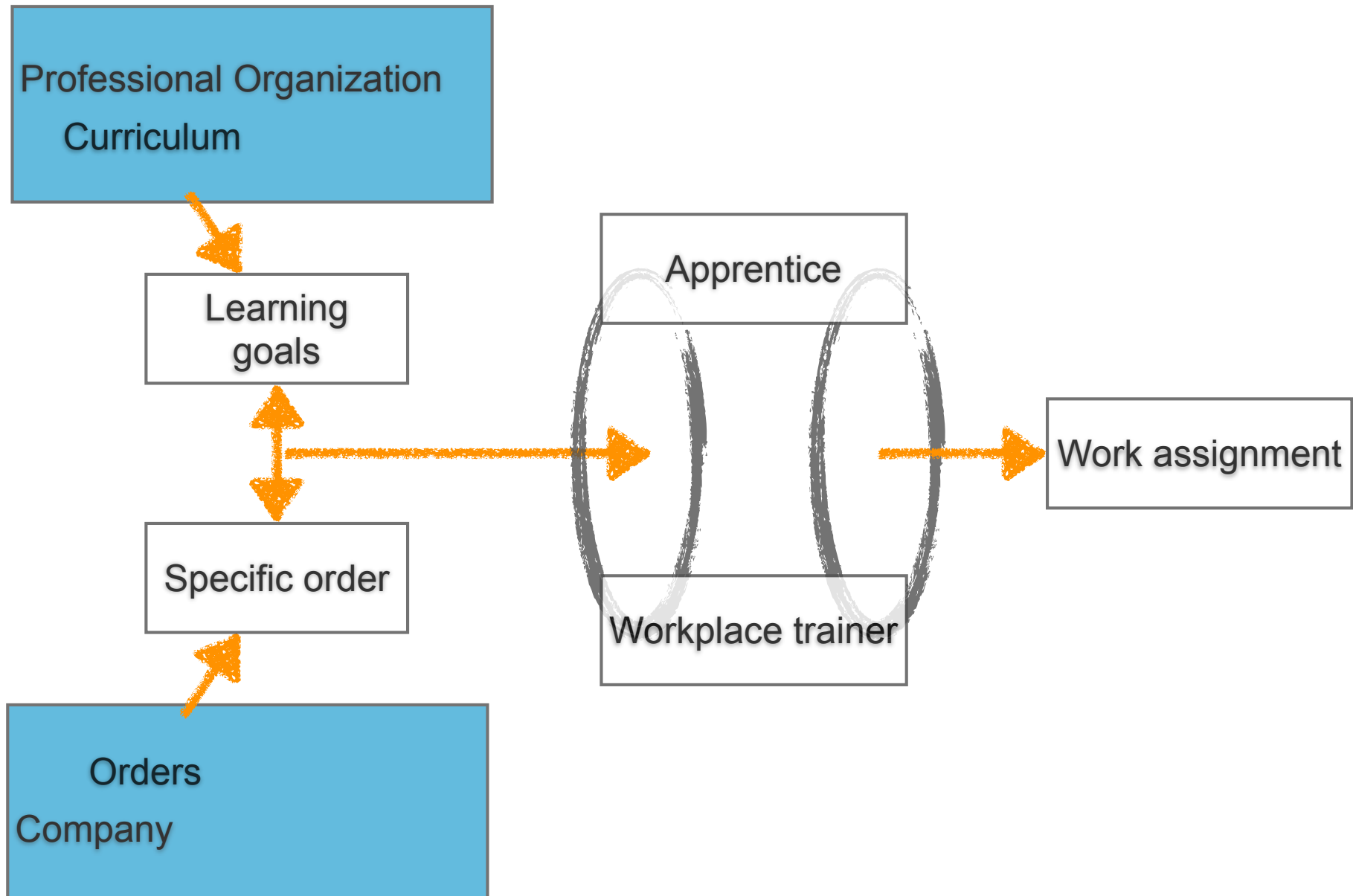
## One mission, three training providers / training venues

|                               |                                                           |
|-------------------------------|-----------------------------------------------------------|
| <u>Companies:</u>             | Instruction and training at the workplace, authentic work |
| <u>Cross-company courses:</u> | Specific, work-related topics                             |
| <u>Vocational schools:</u>    | Classroom instruction                                     |

## Transition from education to employment (TREE)



Stalder, B. E., Meyer, T., & Hupka-Brunner, S. (2011). TREE project documentation. [Das Projekt TREE: Eine Übersicht] In M. M. Bergmann, A. Keller, & B. E. Stalder (Eds.), *Youth transitions in Switzerland: Results from the TREE panel study* (pp. 66-87). Zürich, CH: Seismo Verlag



## **Research Questions: Workplace as learning place**

What are predictors of the workplace as a high quality learning place?

Does this change over time?

## Conceptual framework

Opportunities to learn at the workplace depend on...

- a) the location of learning,
- b) the extent of planning that has been invested in delivering the training,
- c) the role of the trainer and others during the learning process,
- d) the work task and working conditions and
- e) the amount cognitive regulation that is needed to do the task.

Optimal workplace learning is embedded in a situation where there is support from the supervisor, an adequate workload, and the opportunity to use the new competences.

(Hacker, 2005; Jacobs & Park, 2009; Russ-Eft, 2002)

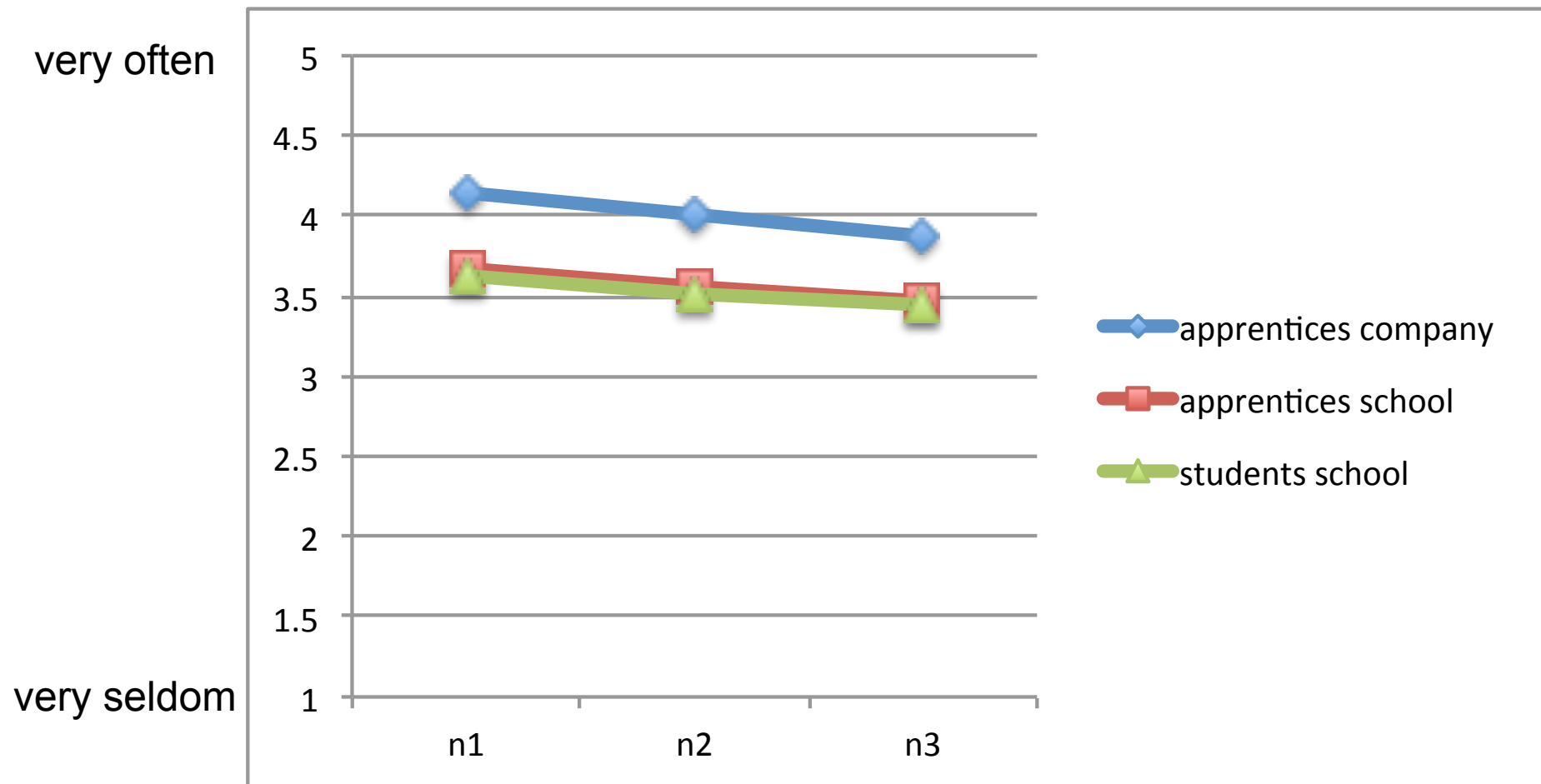
## Learning opportunities at the workplace

How much can an apprentices...

- use their knowledge and skills,
- learn and
- develop their knowledge, skill and abilities at their workplace?

Three items, Cronbach's Alpha = .748, scale from 1 "very seldom" to 5 "very often"

## Learning opportunities at the workplace



## Predictors of the learning opportunities

|                                       |                                  |                                                                                                |
|---------------------------------------|----------------------------------|------------------------------------------------------------------------------------------------|
| Social Environment                    | Interest of significant others   | To what extent do the following persons take interest in your education?                       |
|                                       | Social support                   | To what extent do you rely on the following persons when difficulties arise at work or school? |
| Apprentice                            | Persistency                      | I complete whatever I start                                                                    |
|                                       | Self-Efficacy                    | I can always manage to solve difficult problems if I try hard enough.                          |
|                                       | Self-Esteem                      | On the whole I am satisfied with myself.                                                       |
| Learning style                        | Willingness to learn             | When I am studying, I do it as diligently as possible.                                         |
|                                       | Concentration at school          | Usually I am fully present at school.                                                          |
| Pedagogical and didactical skills     | Workplace trainer                | Explaining things, good relation, high skills, ...                                             |
|                                       | Teacher at the vocational school | Explaining things, good relation, high skills, ...                                             |
| Job design at the workplace           | Scope of action                  | I have a say in what work I would like to do,                                                  |
|                                       | Stress                           | Too much to do, too difficult things to do.                                                    |
| “Job design” at the vocational school | Scope of action                  | I can decide myself how I want to solve the tasks given me at school.                          |
|                                       | Stress                           | Too much to do, too difficult things to do.                                                    |
| Vocational school – workplace         | Transfer                         | The things I learn at the vocational school are useful for my work.                            |

| <b>Learning opportunities workplace</b> |                                  | first year<br>-> first year<br>Beta | first year<br>-> third year<br>Beta |
|-----------------------------------------|----------------------------------|-------------------------------------|-------------------------------------|
| Social Environment                      | Interest of significant others   |                                     |                                     |
|                                         | Social support                   | 0.084 **                            |                                     |
| Apprentice                              | Persistency                      | 0.069 **                            | 0.081 *                             |
|                                         | Self-Efficacy                    |                                     |                                     |
|                                         | Self-Esteem                      | 0.084 **                            |                                     |
| Learning style                          | Willingness to learn             | 0.056 *                             |                                     |
|                                         | Concentration at school          | 0.067 **                            |                                     |
| Pedagogical and didactical skills       | Workplace trainer                | 0.294 **                            | 0.120 **                            |
|                                         | Teacher at the vocational school |                                     |                                     |
| Job design at the workplace             | Scope of action                  | 0.159 **                            |                                     |
|                                         | Stress                           | 0.098 **                            | 0.086 *                             |
| “Job design” at the vocational school   | Scope of action                  | -0.050 *                            |                                     |
|                                         | Stress                           |                                     |                                     |
| Vocational school – workplace           | Transfer                         | 0.217 **                            | 0.160 **                            |
| $r^2$                                   |                                  | .340                                | .148                                |

| <b>Learning opportunities workplace</b> |                                  | first year<br>-> second year<br>Beta | first year<br>-> third year<br>Beta |
|-----------------------------------------|----------------------------------|--------------------------------------|-------------------------------------|
| Social Environment                      | Interest of significant others   |                                      |                                     |
|                                         | Social support                   |                                      |                                     |
| Apprentice                              | Persistency                      | 0.083 *                              | 0.081 *                             |
|                                         | Self-Efficacy                    |                                      |                                     |
|                                         | Self-Esteem                      | 0.059 *                              |                                     |
| Learning style                          | Willingness to learn             |                                      |                                     |
|                                         | Concentration at school          | 0.072 *                              |                                     |
| Pedagogical and didactical skills       | Workplace trainer                | 0.135 *                              | 0.120 **                            |
|                                         | Teacher at the vocational school |                                      |                                     |
| Job design at the workplace             | Scope of action                  | 0.082 **                             |                                     |
|                                         | Stress                           | 0.058 *                              | 0.086 *                             |
| “Job design” at the vocational school   | Scope of action                  |                                      |                                     |
|                                         | Stress                           |                                      |                                     |
| vocational school – workplace           | Transfer                         | 0.156 **                             | 0.160 **                            |
| $r^2$                                   |                                  | .180                                 | .148                                |

## Conclusions

All in all the evaluation of the apprentices of the learning opportunities at the workplace is very positive.

To further improve workplace learning:

- foster transfer of knowledge skills and abilities between the company and the vocational school
- design jobs such that apprentices have a positive scope of action
- „stress“ the apprentices

A good start is important!