Research Integrity at PSI

Information for doctoral students

PSI, Audimax

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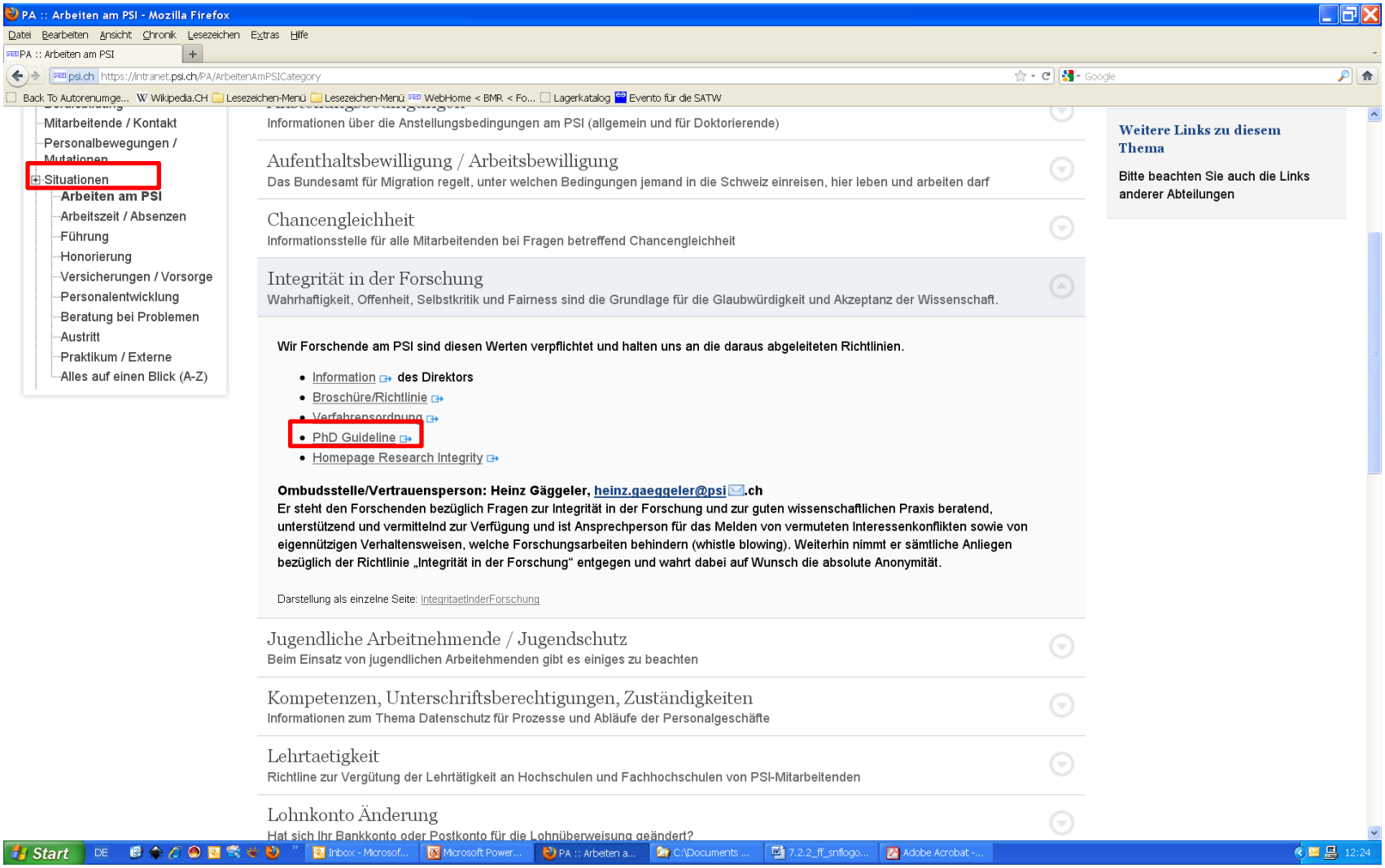
  Prof. em., Dr. phil.nat., Dr.h.c.

Personalabteilung (Human Resources)



PhD students at PSI - Guidelines

Guidelines content

- Research plan
- Experimental work
- Reporting
- *Ethical guidelines*
- Publication
- Duration
- Writing the thesis
- Exams
- After the thesis

PAUL SCHERRER INSTITUT

Personalabteilung

- Ethical guidelines
  Scientific integrity is one of the highest assets in academic research. Corresponding guidelines are available at PSI, based on international and national recommendations. You must consult these guidelines and consider them carefully in your daily work.

On being a scientist

Why you are scientist ?
What you are doing? (answer next slide)
How you do science?

Research Integrity (part of science ethics)

- *What shall we do?* (research topics)
- *Principles: how you should conduct* (normative)
- Theories, responsibility, codices, history (e.g. atomic bomb), meta-science, etc., merit-rating (bibliography, other criteria, scientific career)

Avoid damage (respect rules): to persons, animals & environment
Create benefits: for the society (health, services, food, energy)
Be fair: distribution of merits (authorship, reviewing, plagiarism)
Respect autonomy: human experiments, freedom of research, grants

Research ?

Research definition

(goals and how)

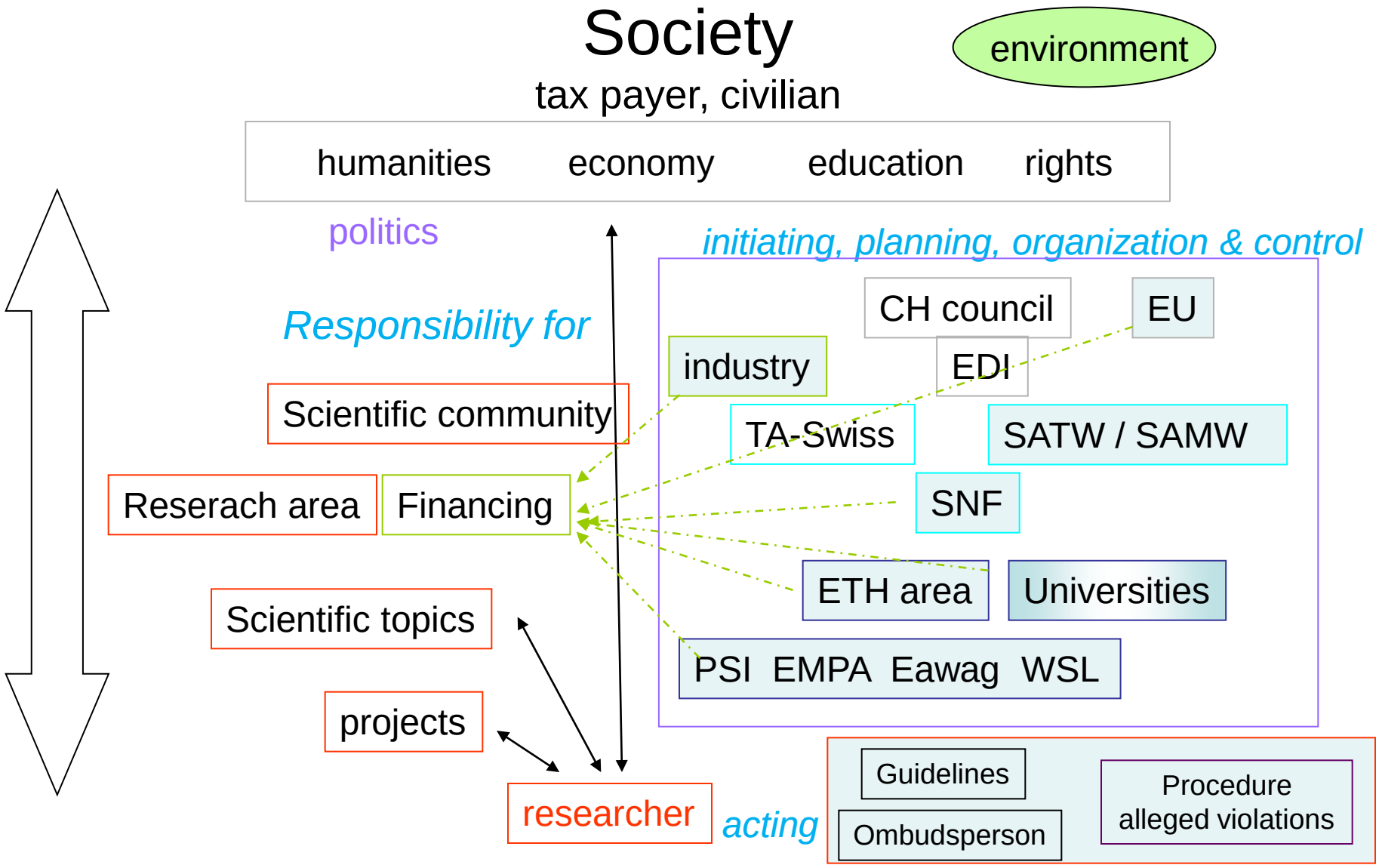
Research can be defined as search for knowledge, or as any *systematic investigation*, to establish *novel facts*, solve new or existing *problems*, prove *new ideas*, or develop *new theories*, usually using a scientific method. The primary purpose for basic research (as opposed to applied research) is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific* matters of our world and the universe.

(Wikipedia)

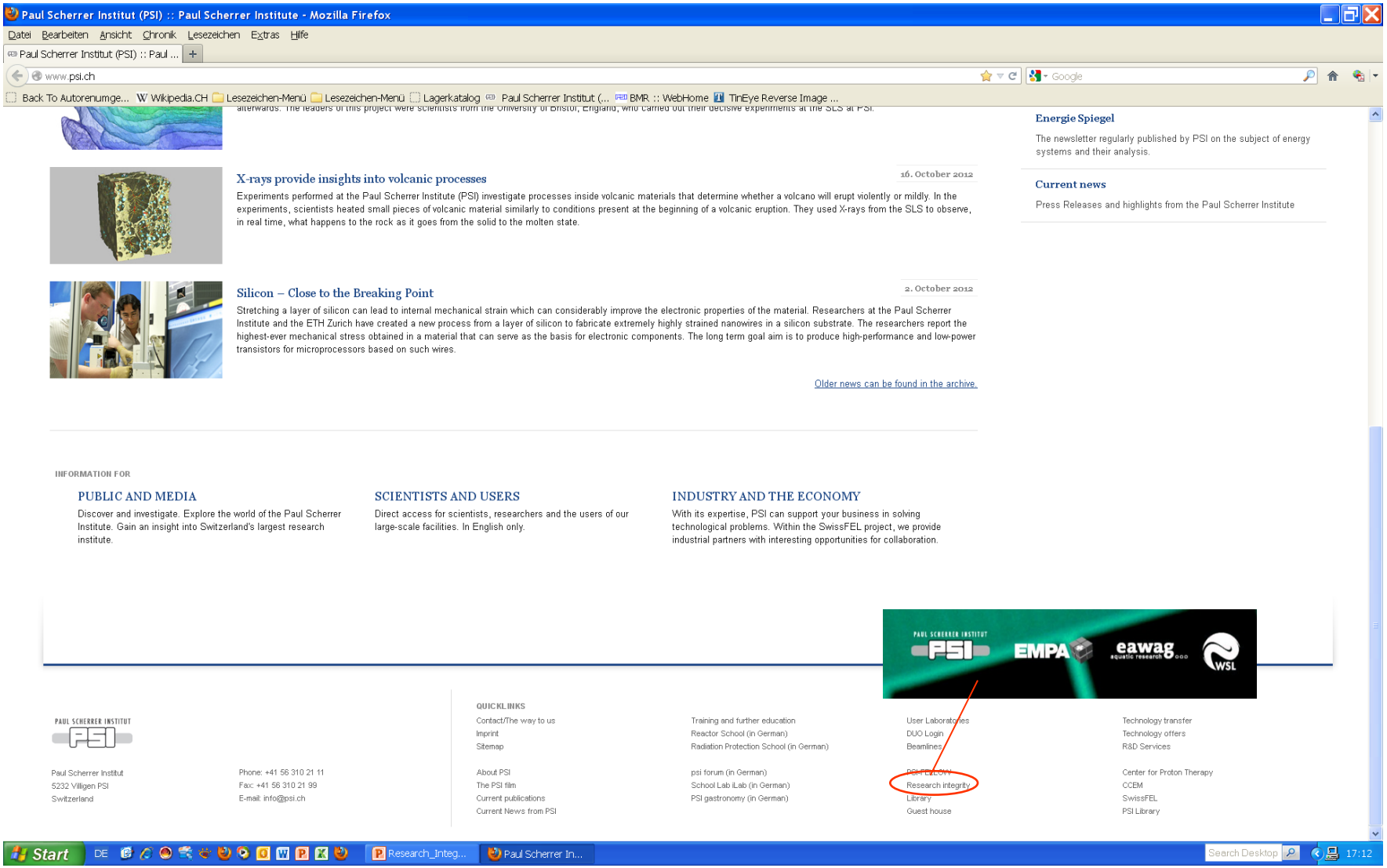
You are creating options for the future !

* Criteria of science: *commonly* accepted and accessible, independent, revisable

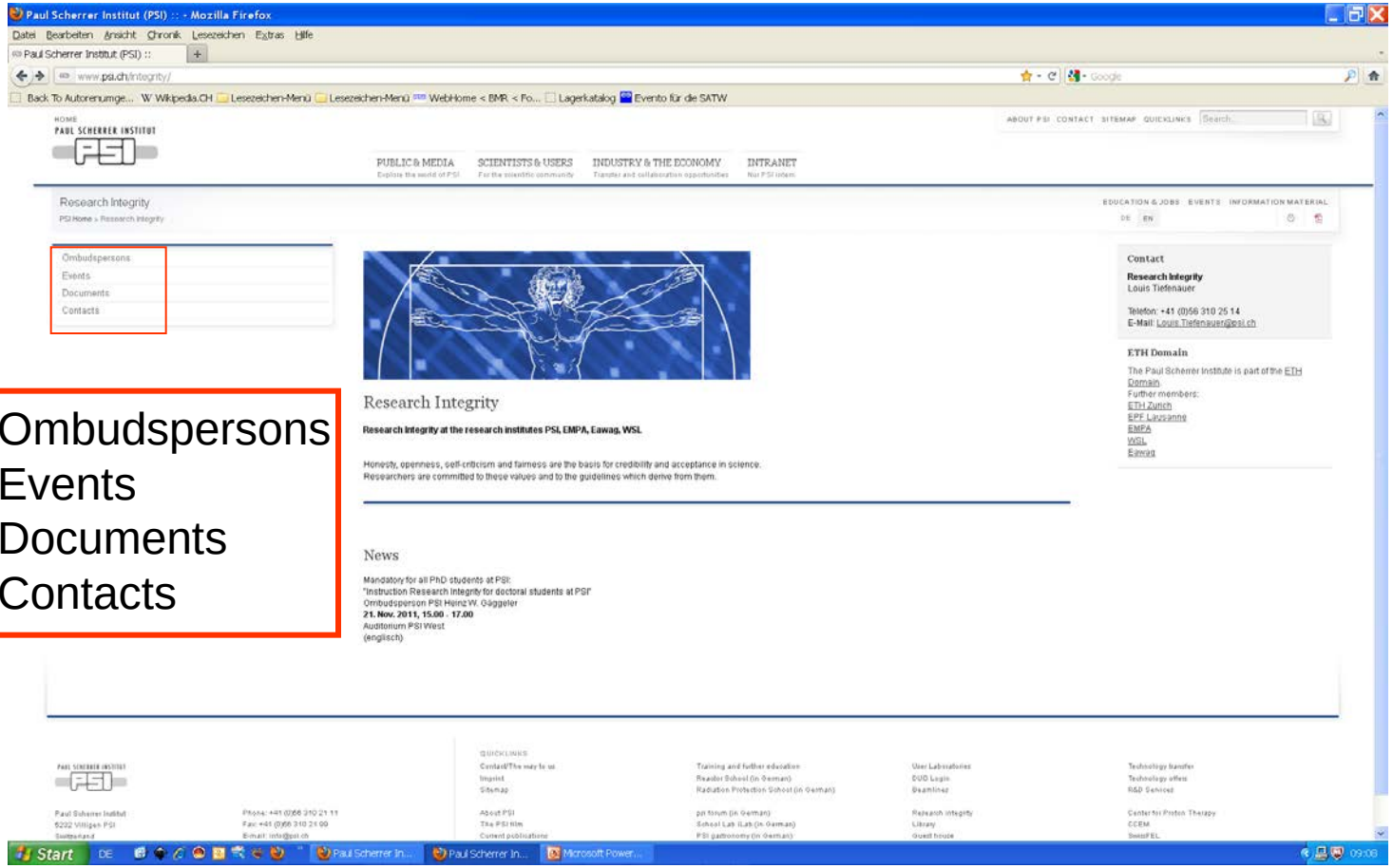
Responsible research



Research Integrity Homepage I

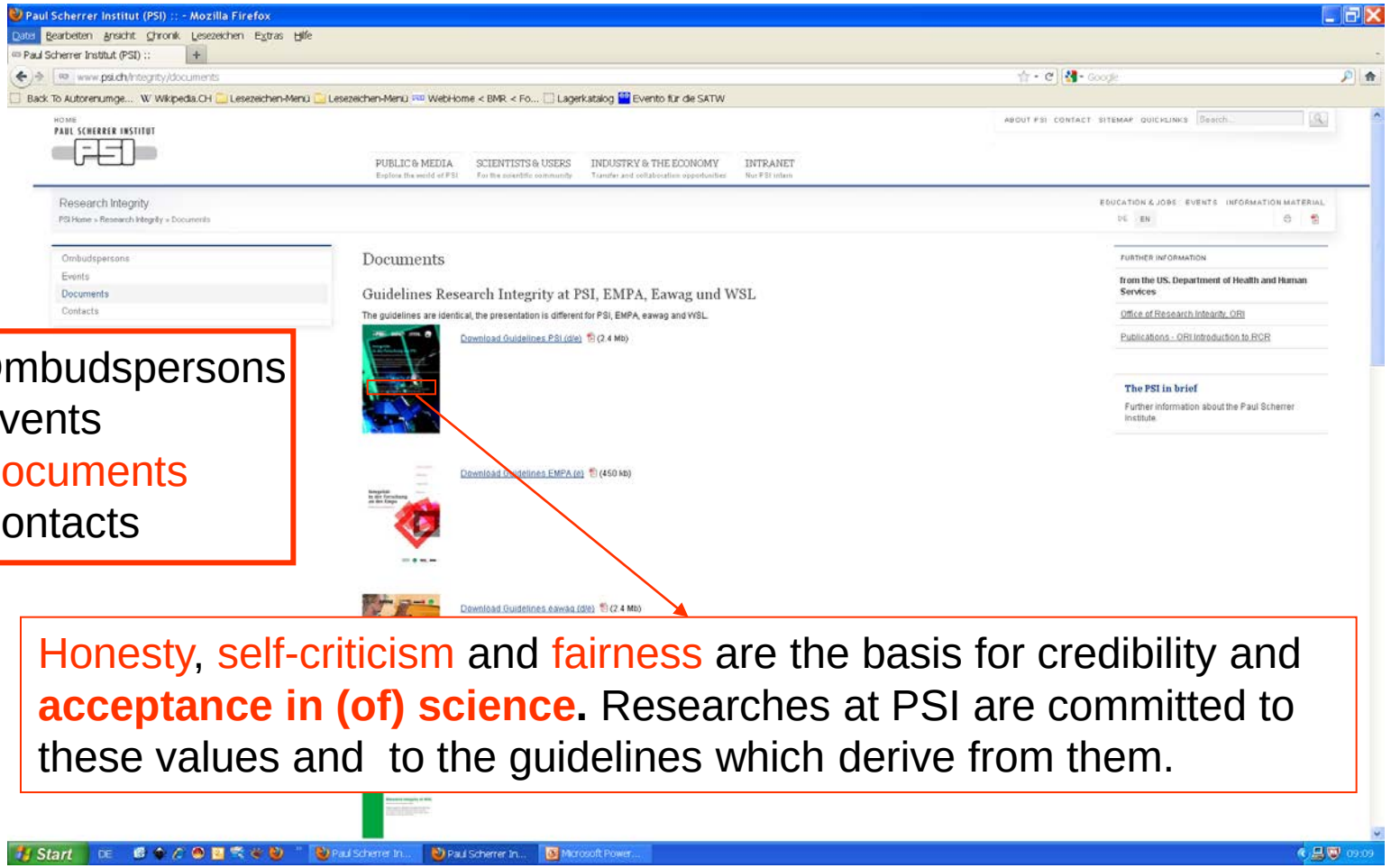


Research Integrity Homepage II



Ombudspersons
Events
Documents
Contacts

Research Integrity Homepage III



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Honesty, self-criticism and fairness are the basis for credibility and **acceptance in (of) science.** Researches at PSI are committed to these values and to the guidelines which derive from them.

Your duties

- *Respect* guidelines (are legal part of working contract)
- *Avoid* misconduct (violations are persecuted; especially fabrication, falsification & theft of data, plagiarism, FFTP, etc.)
- *Contribute*
  - to benefits of science (**results!**)
  - to credibility of sciences (self-criticism)
  - to acceptance of sciences (open days, popular sciences)
  - to advancement of sciences (seminars, education, etc.)
- *Ask* for help (Ombudsperson for all topics, avoid whistle blowing)

Research integrity at PSI

- PhD vademecum, PSI 2010
- Workshop Authorship 2011
- Workshop Avoiding plagiarism 2012
- Workshop 2013
- Freedom of research, conflict of interest

Courtesy form ETHZ
„Guidelines Research intergrity“

Paul Scherrer Institut

Daniel C. Oderbolz, AIT

Survival in the “Digital Lab”

It's about the *how*

- How do you
  - manage your documents?
  - store your valuable data?
  - manage your code?
  - collaborate with others?

- My goal: give an overview of a selection of tools to make your life easier

What is special about the Digital Lab?

- Many things are easy
  - Copy
  - Share
  - Loose
  - Fake

  } data

- Some things are hard
  - Keeping track!
  - Managing the huge heap of data
  - Finding the right data (of your predecessor)

A selection of tools offered by AIT

- Source Code Control (subversion, soon: git)
  - Know what was changed
  - “Time machine”
- Wiki (the Intranet)
  - Work documentation
  - Lab organisation
- Document Management Service
  - Full-Text index all your documents
  - Improved Collaboration (Vs. Email Ping-Pong)
  - Version Control for your documents and data files

How do I get more information?

- Contact me (daniel.oderbolz@psi.ch)
- Refer to the https://intranet.psi.ch/Knowledge_Forum
- Soon: Screencasts

- Would a PhD workshop on the **how** in the Digital Lab be interesting for you?
  https://intranet.psi.ch/Knowledge_Forum/DigitalLab