The Swiss Army is currently engaged in a process of reorganisation: "Swiss Army XXI" will start in 2003 with a smaller but more efficient army. For two years now many professional officers and civilians have been working out proposals and solutions for this project. Discussion has also focused on the recruitment process, and the Dept. of Applied Psychology of the University of Zurich was commissioned to draw up a conception concerning the psychological aspects of recruitment. The concept treats three levels: basic recruitment, assessment of leader potential and assessment of high-ranking officers. By using computer-based psychological tests such as personality questionnaires, intelligence tests, psycho-motor test batteries or tests of social competence, the following goals should be attained:

1. Diminishing the drop-out rate during military basic training by assessing psychological resources.

2. Collecting more detailed information on the conscript to establish a well-founded assignment to military functions.

3. Obtaining a more homogenous distribution of conscripts with leadership potential across different military functions.

Support of the decision-making process for the admission to military leadership schools through a detailed leadership-related aptitude clarification.
1. Why does the Swiss Army need a new recruiting procedure?

The Swiss Army is currently engaged in a process of reorganization. In 2003, the "Swiss Army XXI" will start with a smaller but more efficient army. For two years now, many professional officers and civilians have been working out proposals and solutions for this project. Discussion also focused on the recruitment process, and a military commission was constituted to draw up a concept concerning recruitment in the Swiss Army XXI. To work out the psychological aspects of recruitment, the Department of Applied Psychology of the University of Zurich was commissioned. There are three levels that have to be discussed: basic recruitment, assessment of leadership potential, and assessment of high-ranking officers.

2. Today's recruiting procedure

In a first step, the psychologists analyzed the actual recruiting process\(^1\) to discover what psychological tests are already in use and whether any could be used in the future as well. The Swiss Army recruits more than 30'000 conscripts each year, in 8 recruiting zones at a total of 130 non-permanent recruiting facilities. A recruiting officer is responsible for recruitment in each zone. The recruiting officer's staff comprises militia army surgeons, sports experts, and administrative personnel. Per recruiting day, the recruiting officer has to assign as many as 40 to 50 conscripts to a military function. To do so, he has the following information about the conscript:

- fitness for active service psychological, medical, and physical tests
- abilities, skills, and knowledge school and job achievement, hobbies
- military interests preparatory military training, family traditions, requests
- recruiting officer's impression assignment interview

There have been only two psychological tests in use up to today: a short paper-and-pencil intelligence test (Test 95) and a computer-based test battery for the selection of truck- and tank drivers (EP 95). Thus, current recruitment practice stresses physical aspects and job achievement and does not place primary emphasis on abilities and skills. Compared with procedures used in business personnel selection, recruiting in the Swiss Army today is rather archaic. With the current system, it is not possible to achieve a detailed psychological assessment of conscripts. For that, we conclude that we will need two or three recruiting days, a psychological staff, a computer-based test system, and a few recruiting centers.

3. Basic considerations

As mentioned a moment ago, more accurate psychological assessment requires the implementation of a computerized test system. The question arises as to whether the Swiss Army should use a commercial test system, such as those from Hogrefe or Schuhfried, a test system used by another foreign army, or a new tool constructed for Swiss Army purposes. The following considerations support the construction of a new system and tests:

- specific questions Military service requires different skills than those required in everyday life. This limits the use of standard tests.
- three languages There are only a few tests available that provide parallel forms in the three official Swiss languages of German, French, and Italian.
- costs Licenses for commercial tests are very expensive and would exceed the costs of constructing a new test in a few years' time.
- possibility to practice If the standard tests used were to become public knowledge, conscripts could practice taking the tests prior to the recruitment process.

\(^1\) This paper does not discuss the selection of military pilots.
The Swiss Army already possesses a test system that works for the three languages, is field-tested, and can be easily adapted.

If a psychological test is used for the recruiting process, it will be essential to employ psychologists with psycho-diagnostic training who are able to explain and discuss the test results with the military recruit. Additional testing assistants and computer network specialists will be needed as well.

4. Suggestions for a new psychological recruitment

As contracted, the psychologists on the project formulated the goals to be accomplished by the new recruitment procedures:
1. Diminish the dropout rate during military basic training by assessing psychological resources.
2. Collect more detailed information on the conscript as the basis for a well-founded assignment to military functions.
3. Obtain a more homogenous distribution of conscripts with leadership potential across different military functions.
4. Support the decision-making process for admission to military leadership schools through detailed clarification of leadership-related aptitude.

4.1. Diminishing the drop-out rate during military basic training by assessing psychological resources

During military basic training, the dropout rate caused by psychological problems is about 7%. In the literature, three dimensions are found to be important for psychological military capabilities: intelligence and education, affective stability and maturity, and the ability to establish social relations.

To assess the intelligence of the conscripts, the Swiss Army already uses an intelligence test that can be easily adapted to a computer version. For the assessment of affective stability and the ability to establish social relations, we propose to construct a new questionnaire that taps fears, depression, emotional stability, coping, independence, and social behavior. These assessments belong to the medical part of recruitment. Conscripts who show irregularities have to go to a personal interview with a psychiatrist.

4.2. Collecting more detailed information on the conscript as the basis for a well-founded assignment to military functions

The major question here has to do with the specific abilities and skills that each function demands. Therefore, at the core of making assignments stands a matrix of the different military functions and a list of abilities and skills. As in other personnel selection processes, the Swiss Army has to formulate "job profiles". And because it is impossible to distinguish among 140 different military functions, groups of functions with similar requirements have to be formed, such as the groups transmission soldiers or gunners. Finally, the computer compares the conscript's profile with the function-specific profiles and suggests two or three possible assignments. Thereby, three dimensions are assessed: performance, personality, and some aspects of social competence:

Performance is evaluated using the intelligence test and an adapted version of the test battery EP 95. The sub-dimensions include processing of information, memory, concentration, endurance, stress resistance, vigilance, reaction, visual perception, physical coordination, and others.

A traditional questionnaire is used to assess personality, with the difference that it includes only questions that are relevant to military service. It taps the following dimensions: risk-avoidance, aggression, conscientiousness, flexibility, endurance, self-confidence, cooperation, locus of control, achievement motivation, persistence, and emotional stability.
Social competence as team ability, conflict ability, frustration tolerance, and achievement of dominance is assessed by a test in which the test-taker is presented with various social situations. He has to choose one of a set of possible reactions to each situation.

4.3. Obtaining a more homogenous distribution of conscripts with leadership potential across different military functions.

Today not every branch of military service has enough recruits with leadership potential, because highly educated conscripts typically prefer technical military functions, like transmission. To attain a better distribution, the Swiss Army has to assess leadership potential during basic recruitment. This assessment is a negative-selection: Conscripts should be designated who have no or little potential to fill positions of leadership. To that purpose the same tests are used as for the assignment to military functions, but complemented by some leadership-specific scales, such as leadership motivation or assertion.

4.4. Support of the decision-making process for admission to military leadership schools through detailed clarification of leadership-related aptitude

It is assumed that after six weeks of military basic training, soldiers with leadership potential should be separated out and placed in a military leadership school. To support the selection of future officers, a special test battery is used that assesses the dimensions of planning, logical intellectual power, and leadership-specific social competence.

Planning ability is tested using a version of the well-known assessment center “in-basket” task. The aspirants have to create a military training schedule by integrating lessons in a week’s plan. The dimensions rated are planning competence, problem solving, time management, and goal orientation.

Logical intellectual power is assessed using flow-charts that the soldiers have to analyze.

To assess social competence, an adapted version of the test used in basic recruitment will be used. The dimensions measured include team ability, conflict ability, frustration tolerance, achievement of dominance, need for social contact, agreeableness, integrity, self-confidence, responsibility, and leadership motivation. In addition, a leaderless group discussion – again a typical assessment center exercise – is implemented: For 45 minutes, four aspirants have to discuss a problem and write down their outcomes and decisions. Two observers rate the soldiers on the dimensions of discussion behavior, leadership behavior, group integration, cooperation, and conflict management.

5. The next steps

Once a more detailed concept has been worked out and the politicians have accepted the over-all recruiting concept, test construction will begin. At the same time, important theoretical questions, such as the selection ratio or the comparison of the conscripts’ profiles with the function profiles, will have to be examined.

When test construction is completed, there will be a test-run of the complete recruiting procedure in order to discover any weak points. Furthermore, a first set of test norms can be calculated.

Because test construction is an ongoing process, the data on the conscripts passing recruitment in the Swiss Army XXI will be used to improve the tests and to calculate more accurate norms.