National and sectoral qualifications frameworks

- selected views

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2. Selected experiences developing NQF
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5. Some viewpoints for future consideration

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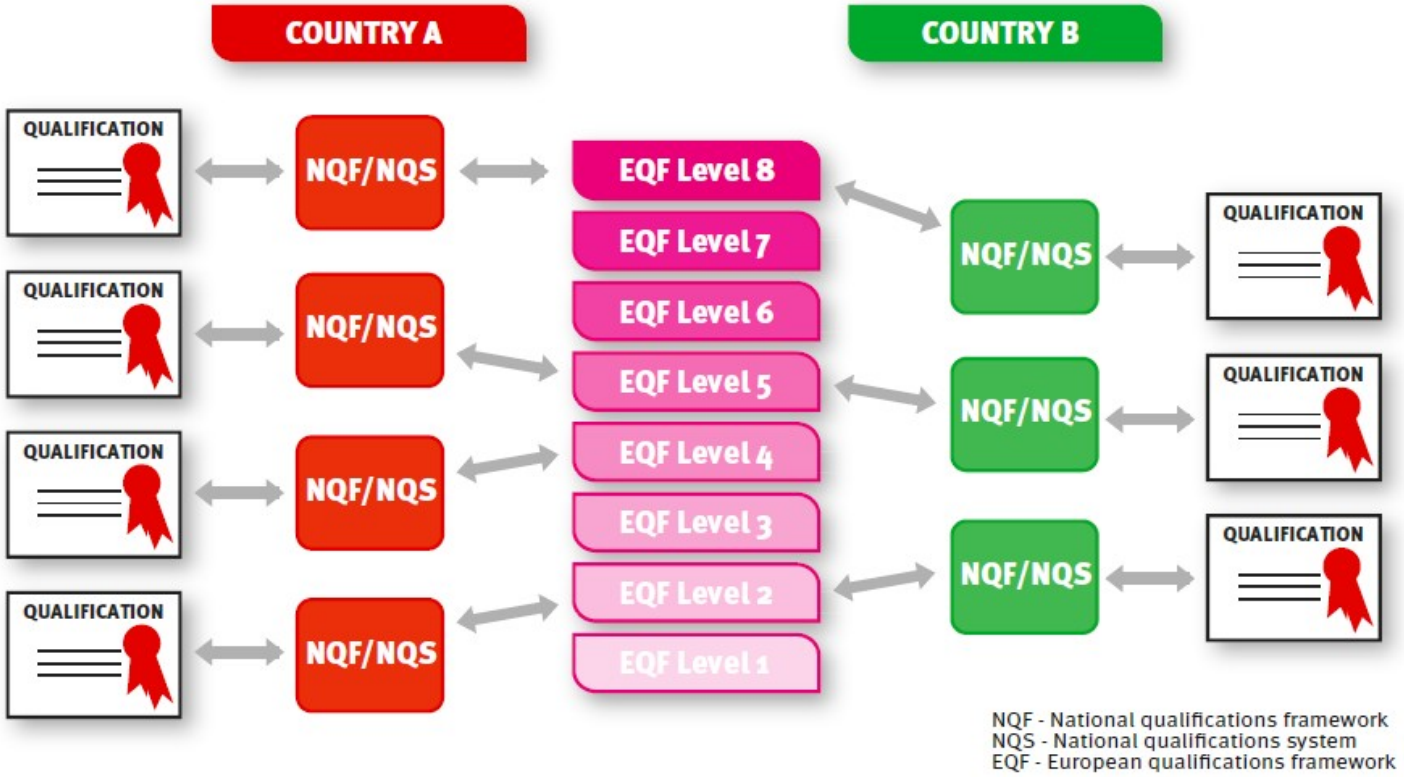
Key ideas

- The EQF aims to relate different countries' national qualifications systems to a common European reference framework.
- Core of the EQF concerns eight reference levels describing what a learner knows, understands and is able to do – *'learning outcomes*'.
- Easier comparison: transparency and synergies
- Include non-formal and informal learning
- Lifelong Learning

EQF, NQF and individual qualifications



- Each country has very different qualifications
- within sectors, esp with nonformal qualifications

Great challenge

- Proper referencing: Assignment of qualificational profiles to the individual levels according to comparable principles
- Or: How EQF can cover all types of qualifications?
- Starting point: A mere description in EQF terms cannot dispel any doubts about the real value of a qualification: the EQF *as such* does not deliver enough criteria for assessment and comparison of qualifications
- NQF and especially SQF may help

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NQF – What it is

- NQF is an instrument for the development, classification and recognition of skills, knowledge and competencies along a *continuum of agreed levels*.
- It is a way of structuring existing and new qualifications with two components
  - Set of ‘levels’ of learning to be achieved
  - Quality assurance

NQF and policy goals

- The value of an NQF lies in its potential to contribute to policy goals
  - Best start with clear policy goals/rationale
  - Relate design to goals and context
  - Unhelpful to think of the NQF as an entity with fixed or universal characteristics
  - Important that there is a real problem or need! It is highly counter-productive to impose ‘solutions’ where a problem does not exist.
- Quite different goals in EU countries

Different foci in different countries

- rectify the poor credibility and quality of existing qualifications and training programmes (Jamaica, Trinidad and Tobago, Ghana, South Africa)
- lack of coherence and the rather fragmented nature of the qualifications system (e.g. GB)
- creation of a regional common labour market also created an impetus to modify national qualification systems by taking account of regional comparability (e.g. EU)

Related developments in EU

- the Europass documentation system,
- the credit points instruments ECTS und ECVET2
- quality assurance instruments

NQF vs. EQF

Differences between the types of framework	National qualifications levels	EQF levels
Main function:	To act as a benchmark for the level, possibly volume and type of learning.	To act as a benchmark for the level of any learning recognised in a qualification or defined in an NQF.
Developed by:	Regional bodies, national agencies and sectoral bodies.	EU Member States acting jointly.
Sensitive to:	Local, regional and national priorities (e.g. levels of literacy, labour market needs).	Collective priorities across countries (e.g. globalisation of trade).
Recognises learning of individuals by:	Assessment/evaluation, validation and certification.	[Does not directly recognise learning of individuals].
Currency/value depends on:	Factors within national context.	The level of trust between international users.
Quality is guaranteed by:	The practices of national bodies and learning institutions.	National practices and the robustness of the process linking national and EQF levels.
Levels are defined by reference to:	National benchmarks which are embedded in different specific learning contexts, e.g. school education, work or higher education.	General progression in learning across all contexts across all countries.

- NQF depend on national policy goals
- 10 agreed upon referencing criteria
- Including non-formal and informal learning

Challenge: Non-formal and informal learning

- Non-formal: extern to formal edu. system
  - Intentional, Organised
  - Huge variety
- Informal: in many cases without cleary specified educational goal
  - Often neither intentional nor orgnized
  - Almost infinite variety
  - E.g. health industry
- Identification and documentation?

German NQF structure

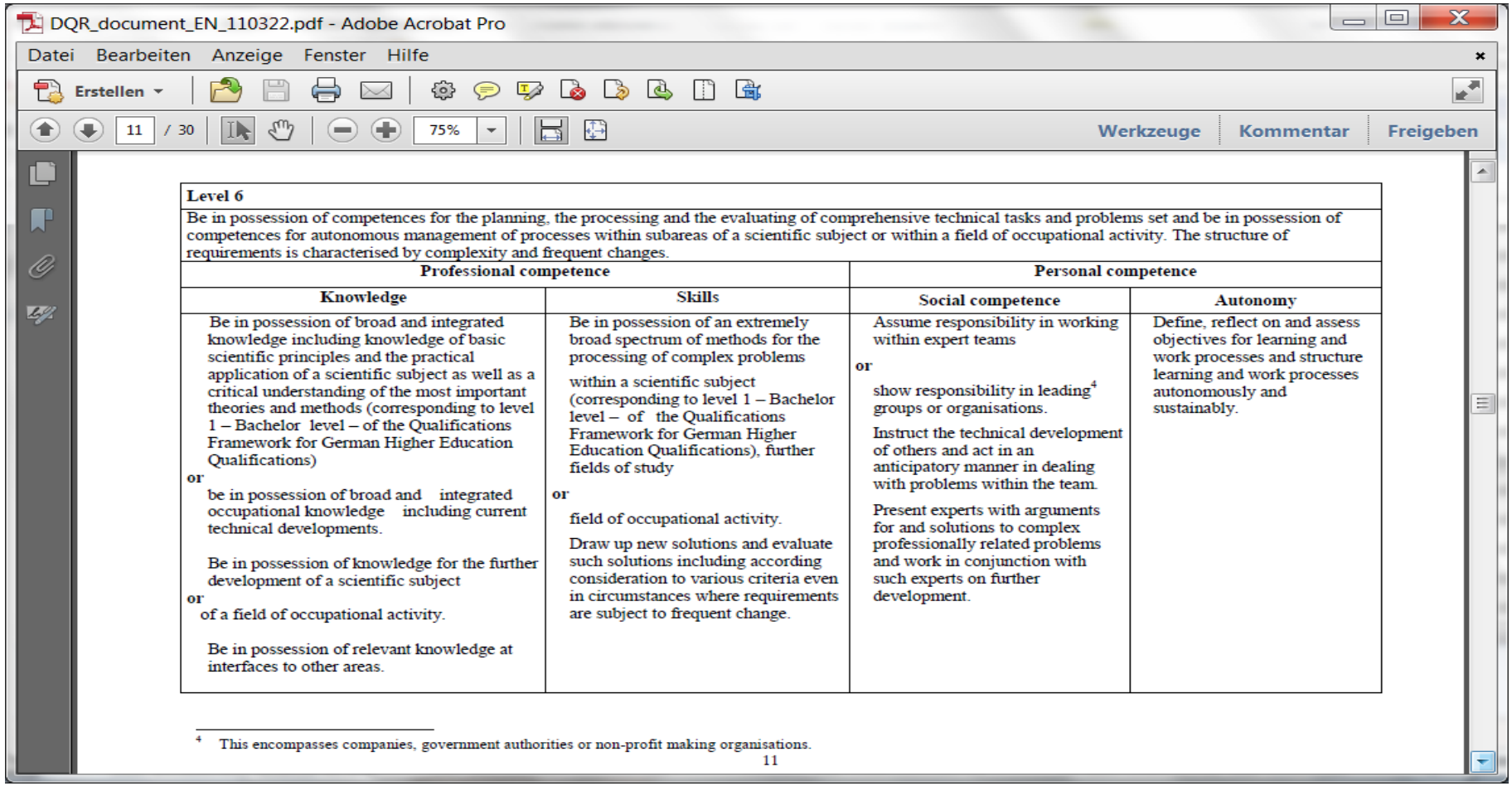
Level indicator			
Structure of requirements			
Professional competence		Personal competence	
Knowledge	Skills	Social competence	Autonomy
Breadth and depth	Instrumental and systematic skills, judgement	Team/leadership skills, involvement and communication	Independence/ responsibility, reflectiveness and learning competence

- Quite common structure
- But two categories of „competence“
- Not quite clear between „Bildung“ and „Ausbildung“

GQF Level 5

Level 5			
Be in possession of competences for the autonomous planning and processing of comprehensive technical tasks assigned within a complex and specialised field of study or field of occupational activity subject to change.			
Professional competence		**Personal competence**	
Knowledge	**Skills**	**Social competence**	**Autonomy**
Be in possession of integrated professional knowledge within a field of study or integrated occupational knowledge within a field of activity. This also includes deeper, theoretical professional knowledge. Be familiar with the scope and limitations of the field of study or field of occupational activity.	Be in possession of an extremely broad spectrum of specialised, cognitive and practical skills. Plan work processes across work areas and evaluate such processes according comprehensive consideration to alternative courses of action and reciprocal effects with neighbouring areas. Provide comprehensive transfers of methods and solutions.	Plan and structure work processes in a cooperative manner, including within heterogeneous groups, instruct others and provide well-founded learning guidance. Present complex facts and circumstances extending across professional areas in a targeted manner to the appropriate recipients of such information. Act in an anticipatory manner in considering the interests and requirements of recipients.	Reflect on and assess own learning objectives and learning objectives set externally, undertake self-directed pursuit of and assume responsibility for such objectives, draw consequences for work processes within the team.

GQF Level 6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Datei Bearbeiten Anzeige Fenster Hilfe

Erstellen

11 / 30 75% Werkzeuge Kommentar Freigeben

Level 6			
Be in possession of competences for the planning, the processing and the evaluating of comprehensive technical tasks and problems set and be in possession of competences for autonomous management of processes within subareas of a scientific subject or within a field of occupational activity. The structure of requirements is characterised by complexity and frequent changes.			
Professional competence		**Personal competence**	
Knowledge	**Skills**	**Social competence**	**Autonomy**
Be in possession of broad and integrated knowledge including knowledge of basic scientific principles and the practical application of a scientific subject as well as a critical understanding of the most important theories and methods (corresponding to level 1 – Bachelor level – of the Qualifications Framework for German Higher Education Qualifications) **or** be in possession of broad and integrated occupational knowledge including current technical developments. Be in possession of knowledge for the further development of a scientific subject **or** of a field of occupational activity. Be in possession of relevant knowledge at interfaces to other areas.	Be in possession of an extremely broad spectrum of methods for the processing of complex problems within a scientific subject (corresponding to level 1 – Bachelor level – of the Qualifications Framework for German Higher Education Qualifications), further fields of study **or** field of occupational activity. Draw up new solutions and evaluate such solutions including according consideration to various criteria even in circumstances where requirements are subject to frequent change.	Assume responsibility in working within expert teams **or** show responsibility in leading[4] groups or organisations. Instruct the technical development of others and act in an anticipatory manner in dealing with problems within the team. Present experts with arguments for and solutions to complex professionally related problems and work in conjunction with such experts on further development.	Define, reflect on and assess objectives for learning and work processes and structure learning and work processes autonomously and sustainably.

[4] This encompasses companies, government authorities or non-profit making organisations.

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GQF: Referencing Overview of allocations

DQR/EQF level	Qualifications
1	Vocational training preparation [*Berufsausbildungsvorbereitung*] • Employment agency measures (vocational preparation schemes)[*Maßnahmen der Arbeitsagentur (Berufsvorbereitende Bildungsmaßnahmen – BvB)*] • Pre-vocational Training Year [*Berufsvorbereitungsjahr (BVJ)*]
2	Vocational training preparation [*Berufsausbildungsvorbereitung*] • Employment agency measures [*Maßnahmen der Arbeitsagentur*] • Pre-vocational Training Year [*Berufsvorbereitungsjahr (BVJ)*] • Introductory training for young people (*Einstiegsqualifizierung, EQ*) *Berufsfachschule* [full-time vocational school] (Basic Vocational Training [*Berufliche Grundbildung*])
3	Dual vocational education and training (2-year training courses) *Berufsfachschule (Mittlerer Schulabschluss)* [full-time vocational school ([general education school leaving certificate obtained on completion of grade 10 at *Realschule* or, under certain circumstances, at other lower secondary school types])
4	Dual vocational education and training (three-year and three-and-a-half-year training courses) *Berufsfachschule* [full-time vocational school] (assistant occupations) *Berufsfachschule* [full-time vocational school](full vocational qualification)
5	*IT-Spezialist (Zertifizierter)* [Information Technology Specialist (Certified)], *Servicetechniker (Geprüfter)* [Service Technician (Certified)]*
6	• Bachelor • *Fachkaufmann (Geprüfter)* [Commercial Specialist (Certified)], *Fachwirt (Geprüfter)* [Business Management Specialist (Certified)], *Meister (Geprüfter)* [Master Craftsman (Certified)], *Operativer IT-Professional (Geprüfter)* [Operative IT Professional (Certified)]* • *Fachschule (Staatlich Geprüfter…)* [*Fachschule* (State-Certified…)]
7	• Master • *Strategischer IT-Professional (Geprüfter)* [Strategic IT Professional (Certified)]*
8	Doctoral studies

- Allocates most commonly used formal qualifications
- Germany developed a detailed EQF Referencing report

DQR documents in Germany

- Handbook DQR Aug. 2013

- DQR Referencing Report May 2013 230 pages

Example	***IT-Spezialist (Zertifizierter)* [Information Technology Specialist (Certified)]** **Software Developer (*Softwareentwickler*)**
Qualification	Software Developer (Certified Information Technology Specialist)
Certifying authority	The personal certificate is issued by a certification body which is accredited by the German Association for Accreditation [*Trägergemeinschaft für Akkreditierung* (TGA)]. The chambers of industry and commerce issue their own certificates.
ISCED 97	Not covered
Requirements for access	A specific prior vocational learning is not stipulated by law. Requires an adequate level of qualification based on relevant vocational training in information and communication technology or relevant professional experience.
Degree	DIN EN ISO/IEC 17024 certificate Acquisition of the occupational title: "*Zertifizierter IT-Spezialist – Software Developer (Softwareentwickler)*" ["Certified Information Technology Specialist – Software Developer"]
Connectivity	Further education and training options: e.g. Operative or Strategic Information Technology Professional
Place of learning	Company
Duration of learning	The length of continuing education is not prescribed, and can therefore differ.
Legal bases, curricula etc.	Ordinance on vocational further education and training in the field of information and communication technology [*Verordnung über die berufliche Fortbildung im Bereich der Informations- und Telekommunikationstechnik*], Federal Law Gazette Part I, Page 2904 of 29 July 2002, as last amended by Article 1 of the Ordinance of 23 July 2010, Federal Law Gazette Part I, p. 1010Amendment of the Notice of the Agreement on Specialist Profiles within the framework of the procedure to structure IT further education and training [*Bekanntmachung der Vereinbarung über Spezialisten-Profile im Rahmen des Verfahrens zur Ordnung der IT-Weiterbildung*] of 21 October 2004, Federal Gazette No 244a of 23 December 2004
DQR/EQF level	5
Summary of reasons for the level allocation	Upon successful completion of the certification process graduates obtain a DIN EN ISO/IEC 17024 certificate. Successful completion of the certification process proves the acquisition of competences allowing the autonomous planning and processing of comprehensive technical tasks assigned within a complex and specialised field of study or field of occupational activity subject to change.

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Example EQF 5

- Other examples for even higher level are available, e.g.
- Strategic Professional: Computer Scientist (Certified), EQF 7

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Sectoral qualification Frameworks (SQF)

- A SQF covers qualifications for – sometimes even required for - professional activities of relevance to a sector of economic activity.
- In principle, sectoral frameworks may be overarching (covering several systems) or system specific.
- Important in testing implementability of NQF/EQF

Sectoral QF and NQF

- In order to pilot the GQF, qualifications from the four selected occupational fields and were set in relation to one another across educational fields
  - health
  - trade and commerce
  - **IT**
  - metal/electrical.

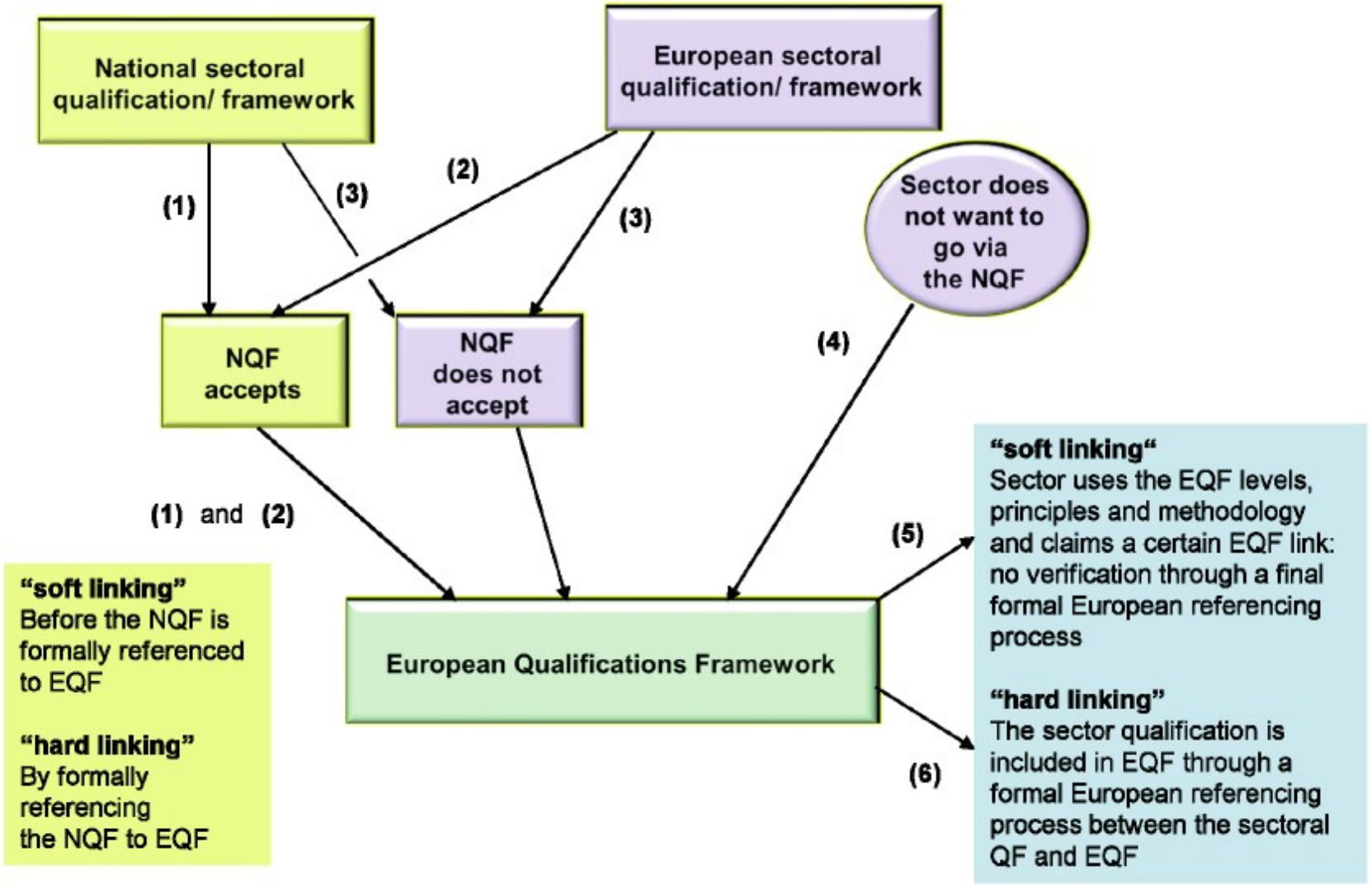
More SQF Pilots

- Diverse industries: Music, sports, hirdressing, automotive, construction, financial advisary, retail trade, food, …
- Two approaches to SQF formulations:
  - based on competence (e.g. automotive and financial, Learning objectives (LO) in terms of performance expectations of employers)
  - based on qualifications (e.g. construction and personal services, LO providing evidence of the individual's capacity to meet these expect.

Linking: How and why

- EQF Advisory Group reports on sectors, largely based on EQF pilot projects, considers reasons
  - why sector based organizations may seek "linking" their qualifications or not
  - and how this could be done, via NQFs or directly
- Some sectors are in a „ parallel universe“
  - Sea transport
  - Aircraft maintenance

Approaches to linking



Example: using the EQF to link to the NQFs

- Personal services (hairdressing)

Job classification	SQF Level/ EQF Level	European Hairdressing Certificate Level
Hairdresser or Junior Hairdresser	2	
All-round Hairdresser	3	A
Hairdressing skilled worker		B
Hairdressing practical training Supervisor	4	B
Hairdressing manager or business owner	5	C
Hairdressing assessor	6	

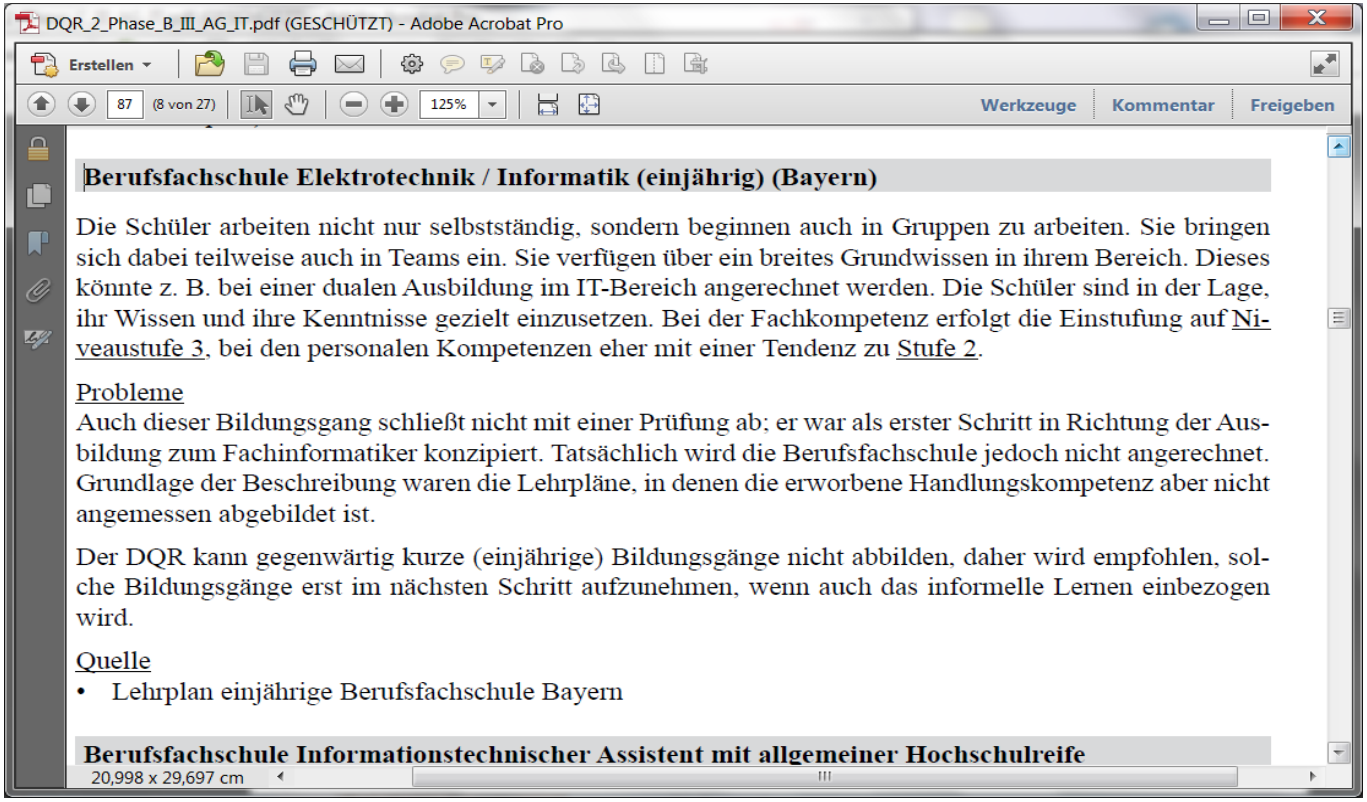
Example: soft direct linkage

- Soft direct linkage: European Foundation Certificate in Banking (EFCB). Two main elements:
  - Standard Examination Model (SEM) and
  - Accreditation Model (AM).
  - Educational institutes need accreditation to be allowed to conduct teaching and eximination
  - It is checked if claim of equivalence is acceptable

Example: Development of IT SQF in Germany

- Creation of working of about 25 representatives of stakeholder – low university presence
- Attacked 19 qulification profiles
- Sub-groups for each qulification of 3-5 persons, mixed backgrounds
- Analysis based on availbalbe documentation
- Test bed for the GQF

Example for Level 3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Erstellen | 87 (8 von 27) | 125% | Werkzeuge | Kommentar | Freigeben

Berufsfachschule Elektrotechnik / Informatik (einjährig) (Bayern)

Die Schüler arbeiten nicht nur selbstständig, sondern beginnen auch in Gruppen zu arbeiten. Sie bringen sich dabei teilweise auch in Teams ein. Sie verfügen über ein breites Grundwissen in ihrem Bereich. Dieses könnte z. B. bei einer dualen Ausbildung im IT-Bereich angerechnet werden. Die Schüler sind in der Lage, ihr Wissen und ihre Kenntnisse gezielt einzusetzen. Bei der Fachkompetenz erfolgt die Einstufung auf Niveaustufe 3, bei den personalen Kompetenzen eher mit einer Tendenz zu Stufe 2.

Probleme

Auch dieser Bildungsgang schließt nicht mit einer Prüfung ab; er war als erster Schritt in Richtung der Ausbildung zum Fachinformatiker konzipiert. Tatsächlich wird die Berufsfachschule jedoch nicht angerechnet. Grundlage der Beschreibung waren die Lehrpläne, in denen die erworbene Handlungskompetenz aber nicht angemessen abgebildet ist.

Der DQR kann gegenwärtig kurze (einjährige) Bildungsgänge nicht abbilden, daher wird empfohlen, solche Bildungsgänge erst im nächsten Schritt aufzunehmen, wenn auch das informelle Lernen einbezogen wird.

Quelle

- Lehrplan einjährige Berufsfachschule Bayern

Berufsfachschule Informationstechnischer Assistent mit allgemeiner Hochschulreife

20,998 x 29,697 cm

- Base description in SQF report
- Detailed tables in Appendix -> pdf

General findings

- Documentation mostly not in terms of learning outcomes
- Not sufficiently defined notions in documentation as well as GQF is a major problem, clear notions need to be developed
- Difficult communication between sub-groups; all teams need to be build with experts from different areas to overcome problems in taxonomie
- Results are therefore considered as preliminary and not yet suitable for final classication

Judgement of the matrix

- Sticking to categories and definitions important
- Differencing between levels difficult, semantic not always clear, especialy with competencies
- Partial, non- and informal qualifications are not reflected
- No equidistance between levels stated
- GQF to much vacationally oriented, specifica of academic work not properly reflected
- Descriptions to abstract
- Universities recommend to use different descriptors for academic and vocational training
- Accumulation of degrees not properly reflected

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NQF as policy reform tool

- Reforming national qualifications systems is at the top of the reform agenda of EU member states, ***using NQFs as a policy tool for reform.***
- Reform of national qualifications systems cannot be pursued in isolation, but instead should be part of the wider reforms of a country's education and training systems

EUROPEAN TRAINING FOUNDATION (ETF) 2010

Frameworks and politics

- Frameworks do have political implications
  - Universities vs. Fachhochschule
  - Right to grant Doctoral degrees
  - *No 9. Level in NQF (Habilitation), unlike Kazakstan*
  - Status of non-university degrees like Meister, Techniker
  - Right to access further levels of education
  - Correspondance to salary tarif levels
  - Freedom of teaching and research
  - Disagreement of the level of „Abitur“
- Who will decide?

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Who are the relevant stakeholders?

- EU parliament „development of individuals, competitiveness, employment and social cohesion in the Community “
- Currently I observe strong focus on employability
- Need to clarify relation between „Bildung“ and „Ausbildung“

Do we use proper notions in modeling?

- In natural sciences, notions are ultimately (well) defined by measurement procedures
- I do not see such a procedure emerging for notions like „learning outcomes“, ECTS etc, but danger to „fill the gab“ politically

Promote long term view!

- Most important are long term qualifications which are not easily maesureable, e.g. by exam
- Measurement procedures may (will!) influence outcome
- Ignore short term aspects of labor markets
- Promote long term view also in the structure of examinations: Few substantial, large modul exams are better than many small ones

Thank you very much for your attention