

Report:

Developments, future company profiles,
and entrepreneurial skills in the creative industries

Executive Summary

Background

The creative industries have undergone massive changes since the beginning of the 21st century. Technology – mainly the digitalisation – has changed the way of production, sales and distribution fundamentally, new competitors – often from outside the branches – appeared and captured market shares, customer behaviour has become more and more volatile, close cooperation with customers (“prosumer”) is normality. One effect of these developments is that competences become obsolete faster than in the past.

But the digital transformation does not only threaten traditional industries and players. It also offers tremendous opportunities for entrepreneurs and people with entrepreneurial spirit.

Therefore the central questions of the Thrive!-project are

- What do future companies in the digital industry look like?
- Can some kind of „typical“ company profiles be identified?
- What are the consequences for employees’ competences and especially necessary skills for entrepreneurial activity?

Desk research

To answer these questions the desk research concentrated on

- Developments in the creative industries.
- The gigatrend digitalisation and the megatrends and their consequences on the creative industries and the competences of the future.
- Developments in innovation management entrepreneurship.
- The characteristics of the target groups “Entrepreneurs”, “Employees with entrepreneurial spirit” and “Female entrepreneurs”.

Changing framework conditions in the creative industries offer opportunities for entrepreneurs

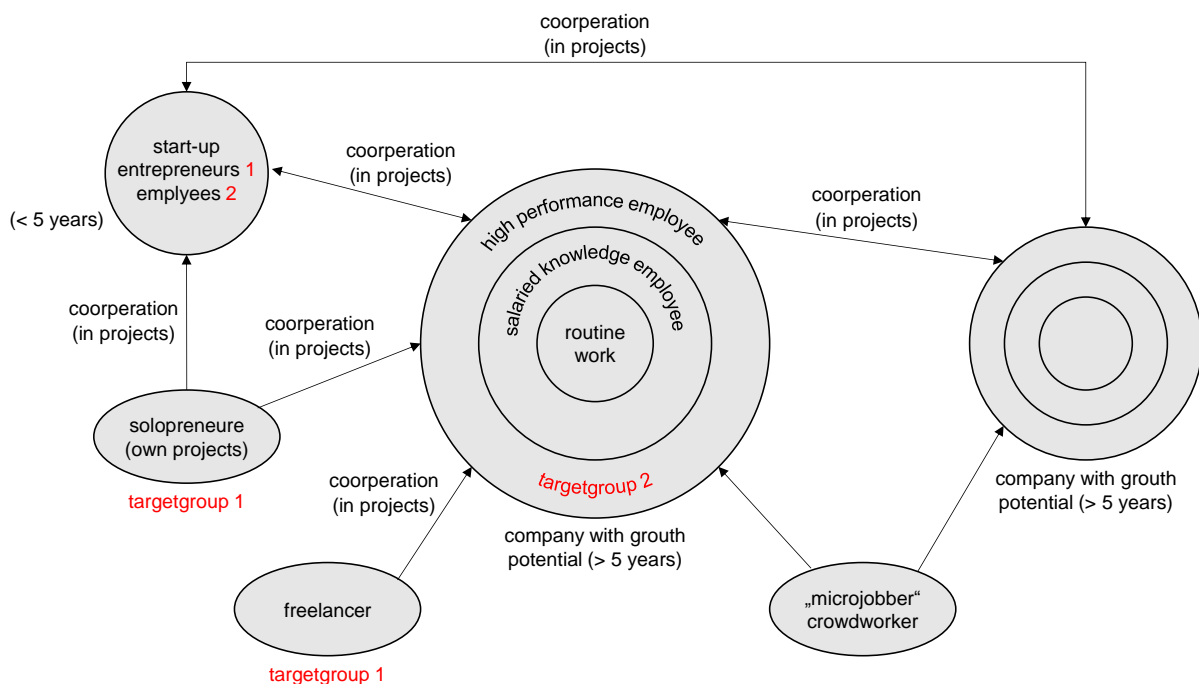
More and more routine jobs will be automated in the near future. In the creative industries there will still remain a lot of creative jobs that cannot be automated. The creative potential arises from the cooperation in new teams that combine and/or bring together ideas and impulses from different sectors/disciplines. This will offer a lot of options for entrepreneurs. Important competences for working successfully in this environment will be

- Sense of new developments/trends

- Ability for a creative cooperation in permanent changing teams consisting of different cultures and disciplines
- Organisational talent
- Project-management
- Entrepreneurial thinking from the perspective of the customer

**The Digitalisation creates a new innovation-ecosystem
“Creative industries of the future”**

The digitalisation has outstanding effects on the future of the creative industries. The implications on the organisation of the future as well as the mode of working in the future (“Work 4.0”) are tremendous. The options for new business for creative people increase with increasing digitalisation. Digital competences are seen as the key element for adaption to the digital change – they open the door for new business models. The company of the future will be organised as a „fluid organisation” – often you can’t differentiate who belongs to the enterprise und who doesn’t: agencies, consultants, external experts are involved in business processes as well as permanent staff. A new innovation-ecosystem evolves



Ecosystem “Creative industries of the future”

A “typical” company consists of high performance employees that mainly work on innovations and new business models. They have a high degree of entrepreneurial spirit. The second group are the salaried knowledge employees. They have an over-average qualification and conduct challenging tasks in business administration. The routine jobs are executed by “microjobbers” (often crowdworkers). In the context of entrepreneurship and innovation these companies cooperate with other companies, startups, freelancers, and/or solopreneurs.

Megatrends

Megatrends mark middle- to long-term perspectives in society, economy, technology etc. We analysed 12 megatrends (Silver Society / Demographic Change, Neo-ecology, Mobility, Urbanisation, Connectivity, Gender Shift / Diversity, Globalisation, New Work, Knowledge Society / New learning, Health, Individualisation, Safety and Security) and tried to identify impacts on the future of the creative industries. There are impacts both on new products and services as well as on the way to work and the structures of the companies of the future.

Megatrends offer manifold opportunities for new, individualised products and services, customers and market segments. This development tends to forward entrepreneurship in the creative industries and beyond. Entrepreneurs must be able to analyse trends and future developments in order to identify consequences for their business. That implies

- To know and be able to use different sources of information on trends and developments (e.g. trade-organisations, specialised consultants)
- To know and be able to use basic methods and tools of “impact assessment”
- To be able to identify chances as well as risks
- To be able to think in the “philosophy” of business models

Innovative approaches in innovation management and entrepreneurship require new competences

Success in innovation is highly connected with business model innovations: the economic success does no longer primarily depend on new products, new services or new processes, but on new business models. Innovation is no longer the result of technological development and market-/customer analyses, but of a new definition of the rules of the game in nearly all branches. The emerging role of business model innovations opens new opportunities for entrepreneurs and startups. Furthermore the new strategic approach of many established concerns opens new opportunities for employees with entrepreneurial spirit.

Following the new understanding of innovation(-processes) there has also been a shift in the understanding of entrepreneurship. One trend is that an entrepreneur doesn't have to be an “allrounder” who knows everything around the management of a business. This tasks - communication, logistics, accounting etc. - can be delegated to external specialists. The business concept is in the center of the foundation of a company – and the (administrative) functions mentioned above are organised by cooperations. The entrepreneurial design has to be “user-oriented” and must follow the principles: simplicity, scalability, “white-label”-solution, minimize risks, experimental pre-start, intelligent prototyping. In this mindset the entrepreneur is something like a moderator of a process who coordinates and orchestrates the different duties in connection with running a business successfully.

The core competences of an entrepreneur are close related to the business concept – the modern profile of qualifications/vcompetences/skills of a successful entrepreneur covers the ability

- to identify trends and technological developments early
- to develop an innovative (business) concept

- to implement the concept
- to inspire the employees (and business partners) of the concept
- to adapt the concept to changing framework conditions

The basic knowledge in business administration is still relevant in entrepreneurship – but there are some fundamental changes in the “core” issues of business administration. The developments that can be summarised with the term “crowd-#” have a profound impact on business knowledge. Especially funding has changed fundamentally (“crowdfunding”). The catalogue of basic skills in business administration for entrepreneurs has to be enriched by topics as crowd-funding, social-media, new organisational concepts, new leadership concepts, (virtual) cooperation etc.

Characteristics of different „types“ of entrepreneurs induce particular challenges

Target groups of the Thrive!-project are young entrepreneurs / start-ups (companies younger than 5 years), employees with entrepreneurial spirit / companies with growth potential (older than 5 years) and female entrepreneurs.

Young entrepreneurs need

- in many cases more profound skills in (fundamental) business knowledge and skills
- specific management tools for dealing with crises (crisis management)
- a functional early-warning system

and on the level of personal competences

- a good self-management
- resilience / health management

Employees with entrepreneurial spirit need

- Sophisticated skills in project-management (with regard to the digitalisation especially with modern concepts in project-management like agile project-management, scrum etc.)
- Skills in communication
- Competences in leadership

Specific competences for *female entrepreneurs* that could be developed via education and training are

- improve the willingness/ability to take financial risks, e.g. negotiation with VC and banks
- support decision making, e.g. by methods and tools that accelerate the process of decision making.
- work-life-balancing/-blending.

Company profiles of the future in the creative industries – implications for entrepreneurial competences

Print companies with integrated marketing solutions

Entrepreneurs will have a deep understanding of Big Data. Data-driven marketing systems will be established in every printing company and will rely on a wealth of personal data for successful marketing campaigns. For this purpose, future specialists also demand knowledge of an automated read-out data algorithms. Technical understanding of the automation and networking of machinery will be an important aspect to enable the production of edition 1. This also requires competences about upstream and downstream production processes of the machinery. Owning personal data for marketing purposes further requires data security competencies to protect the end user's privacy and keep it anonymous.

Packaging

Entrepreneurs have to master programming skills in order to create intelligent packaging solutions. This programming knowledge allows setting up interfaces to provide relevant additional information for specific end devices. Software-specific competences enable a professional handling with 3D-simulation programs to design innovative and unusual packaging. Expertise in innovative materials for packaging materials that are cheap and completely recyclable will be essential for the future.

Sign and display

The display production requires of entrepreneurs knowledge of content creation and design creativity. Likewise, technical skills for the maintenance of defective displays are required. For the production of signs also competences in the field of material science are necessary to be able to offer customers innovative substrates and special inks and lacquers.

Digital Marketing Agency

Self-employment in digital marketing agencies will demand skills for social media marketing. Successful campaigns require 24/7 content creation, which must be mastered by the workforce. However, the right target group must be addressed via the respective social media channels, which also requires customer orientation. In addition, understanding of data analysis / management is an important competence for working with social media channels to be able to measure the success of marketing campaigns.

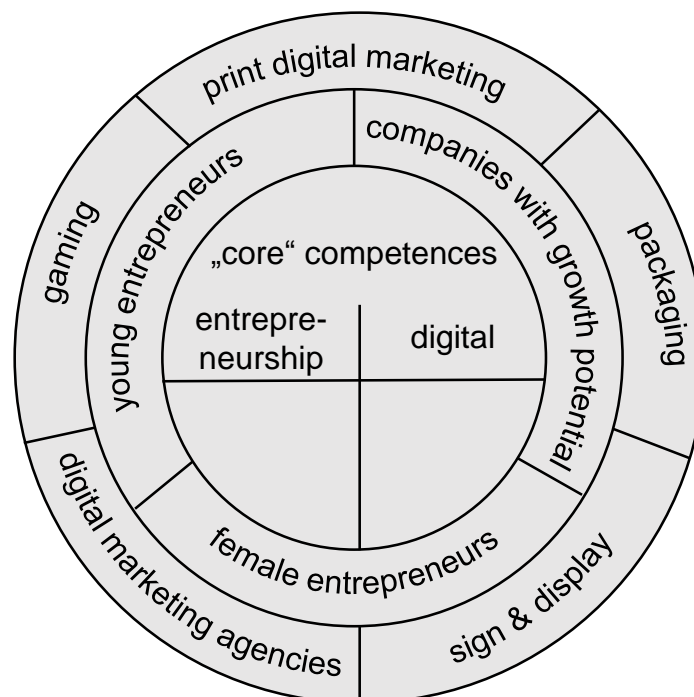
Gaming

Technical skills for AR and VR as well as mixed reality will be a great importance to make game solutions seem ever more realistic. In order to adapt game solutions as closely as possible to the end user, competencies must be acquired which allow the developer to collect as much data as possible about the potential end user and to use it confidentially. Developers must e.g. developing game solutions with learning effect for schools or universities requires subject-specific skills in order to be able to adapt the content. Developing game solutions is a very challenging business. For this, entrepreneurs need skills to build up a value creation network with competent cooperation partners.

A new portfolio of entrepreneurial competences and skills for the future in the creative industries

The new portfolio of entrepreneurial competences consists of different category groups:

- In the center of the portfolio there are the “core” competences. These core competences for entrepreneurs in the creative industries consist of entrepreneurship competences and of digital competences. This competences are some kind of basics that are relevant for all entrepreneurs resp. people with entrepreneurial ambitions in the creative sector. With reference to the Thrive!-project they apply to the three defined targets groups of the project in equal measure.
- In a second step these competences have to be assessed and complemented by competences and skills that refer to the special lacks in competences of the different target groups.
- And in addition to that dependent on the subsector there are some special competences that are important to be successful on the specific markets of the subsectors.



Competence model for entrepreneurship in the creative industries of the future

The competence model below and the chart on the next page deliver an appropriate framework for the self-assessment and the learning material to be developed and tested in the Thrive!-project.

	Entrepreneurial skills	Digital skills	Sector-specific skills
All target groups	<ul style="list-style-type: none"> understand what business models are, how they function, and they also must know some "standard" types of business models (e.g. multi-sided platforms, long tail, freemium), know and be able to exercise methods for business model generation (e.g. CANVAS). to identify trends and technological developments early to evaluate trends and convey the consequences for the current (and) future business to develop an innovative (business) concept and to implement the concept methods: entrepreneurial design, lean startup, customer development, design thinking Capacity for teamwork Working in flexible structures Project-management - basics of "traditional" project-management (also multi-project-management) Integration of external partners coordination of complex teams Intercultural competences Leadership competences 	<ul style="list-style-type: none"> Sense-Making Ability to draw conclusions from a great many of data („big data“) Social Intelligence Ability to use empathy – scrutinise digital processes Novel and adaptive Thinking Ability to think innovative in problem-solving (cross-industry innovation) Cross-Cultural Competency Ability to adapt quickly to modified cultural frame conditions Computational Thinking Ability to convert a multiplicity of data into abstract concepts New Media Literacy Ability to work with new digital forms for expression (photos, video, texts, language...) Transdisciplinarity Ability to think in greater /superior contexts Design Mindset Ability to think like a designer in problem solving (perspective of customer) Cognitive Load Management Ability to screen information much better to keep productive Virtual Collaboration Ability to work in virtual working constallations 	<p><i>Print companies with integrated marketing solutions</i></p> <ul style="list-style-type: none"> Deep understanding big data Automated read-out algorithms Automation and networking of machinery Data security /protection of end user's privacy <p><i>Packaging</i></p> <ul style="list-style-type: none"> Programming skills Software-specific competences 3D-simulation Innovative materials for packaging <p><i>Sign and display</i></p> <ul style="list-style-type: none"> Content creation and design creativity Maintenance of defective displays Material sciences <p><i>Digital marketing agencies</i></p> <ul style="list-style-type: none"> Social media marketing High customer orientation Data analysis / data management <p><i>Gaming</i></p> <ul style="list-style-type: none"> Augmented and virtual reality Competences in didactics (serious gaming) Subjects specific skills (content) Build up a creation network
Young entrepreneurs	<ul style="list-style-type: none"> profound skills in (fundamental) business knowledge and skills specific management tools for dealing with crises (crisis management) incl. a functional early-warning system a good selfmanagement and resilience / health management using platforms to gain mandates (e.g. specialist working as a freelancer) teamworking – teams with members of different cultures and disciplines networking, e.g. to support a continuous occupation. a good project-management to coordinate different/parallel jobs. 		
Companies with growth potential	<ul style="list-style-type: none"> Sophisticated skills in project-management (with regard to the digitalisation especially with modern concepts in project-management like agile project-management, scrum etc.) Skills in communication Competences in leadership Ability to work under pressure / adaptiveness / flexibility Time- and self-management (ability to set goals, ability to prioritise etc.) / Resilience Ability to work in teams / networking / cross-cultural competences 		
Female entrepreneurs	<ul style="list-style-type: none"> improve the willingness/ability to take financial risks, e.g. negotiation with VC and banks support decision making, e.g. by methods and tools that accelerate the process of decision making. work-life-balancing/-blending. 		