

Medizintechnik und Biotechnologie aus Thüringen

Know-how regional und international vernetzt.



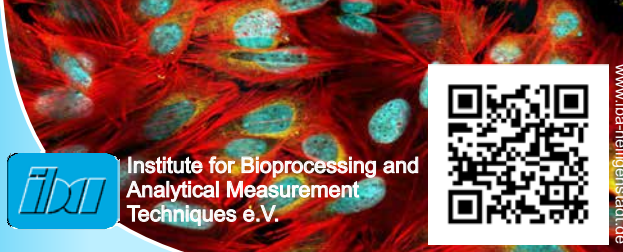

Medical technology and biotechnology from Thuringia
Regional expertise closely linked to an international network

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 We would like to thank the following partners for their support:

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Anspruchsvolle Zeiten Challenging times

„Ophthalmologietechnik für das 21. Jahrhundert“ – damit ist medways e.V. vor über 25 Jahren gestartet. Heute gehört medways zu den etablierten Verbänden der Branche, mit einem enormen Erfahrungsschatz, mit einem umfassenden und stabilen Netzwerk und nicht zuletzt: mit Biss. Denn die Zeiten sind nicht einfacher geworden.

Wer hätte 1999 gedacht, dass wir – damals noch unter dem Namen „OphthalmolInnovation“ – aus dem Bundeswettbewerb zur Förderung von „Kompetenzzentren Medizintechnik“ als Gewinner hervorgehen? Und wer hätte ferner gedacht, dass sich aus der einstigen Projektgruppe ein nicht wegzudenkender wichtiger Knotenpunkt für die Medizin- und Biotechnologie-Branche etablieren würde, der mittlerweile 90 Mitglieder umfasst und international agiert? In diesen 20 Jahren haben wir viel gesehen – die Entwicklungen in der MT- und BT-Branche sind rasant, die Disziplinen verschmelzen zunehmend, die Digitalisierung und die wachsenden regulatorischen Anforderungen beschäftigen weite Teile der Branche.

An diesen Entwicklungen ist medways stetig gewachsen. Tagtäglich beackern wir die Branche, wir evaluieren, initiieren, diskutieren, kontrollieren und referieren – für unsere Mitglieder, für die Branche. Denn wir haben Anspruch. Den Anspruch, der Branche die allumfassenden Services zu bieten, die sie braucht.



*Vorstand 2018–2020 (v. l. n. r.):
Prof. Ingrid Hilger
Katrín Uschmann
Prof. Jens Hauelsen
Prof. Manfred Dick
Thomas Köhler*

Foto: medways e.V.

“Ophthalmology technology for the 21st century” – this is how medways e.V. started more than 20 years ago. Today, medways is one of the established associations in the industry with an enormous wealth of experience, a comprehensive and stable network as well as a strong determination and the necessary drive as times have become increasingly complex.

But let's start from the beginning:

Who would have thought in 1999 that we – at that time known as “OphthalmolInnovation” - would emerge as winners from the federal competition for the promotion of “Competence Centres for medical technology”? And furthermore, who would have thought that our former project group would establish an indispensable hub for the technology and biotechnology industry, which now has 90 members and operates internationally? In these 20 years, we have seen a lot: developments in the MT and BT industries are rapid, disciplines are increasingly merging, digitalization and growing regulatory requirements are occupying large parts of the industry.

As a result of these developments, medways has grown steadily. Every day we attend the industry, we evaluate, initiate, discuss, control and talk: for our members, and especially for the industry. Because we have ambition. Ambition to provide the industry with the comprehensive services it needs.

Überall steckt ein Stück Thüringen drin – Medizintechnik von A bis Z

Warum in die Ferne schweifen?

Eine zentrale Lage innerhalb Deutschlands und Europas, kurze Wege, eine gut entwickelte, moderne Infrastruktur, attraktive Forschungs- und Wirtschaftszentren wie Erfurt, Weimar, Ilmenau und Jena, günstige Gewerbeflächen und die hohe Lebensqualität – all das kann Thüringen.

Wo sich Stift und Nobelpreisträger die Klinke in die Hand geben

Medizintechnik und Biotechnologie entstehen in Thüringen – und zwar bereits in den international etablierten, zukunftsorientierten Hochschulen, wie z. B. der Friedrich-Schiller-Universität Jena, der Ernst-Abbe-Hochschule Jena und der Technischen Universität Ilmenau. Eng verknüpft mit den Thüringer Forschungszentren und Institutionen, bilden sie die Basis für viele Patent-anmeldungen und Produktentwicklungen. So stammen Geräte oder Komponenten für die Augenheilkunde, die medizinische Robotik, Analytik oder Diagnostik aus Thüringen. Auch Tests zur Erkennung von Gebärmutterhalskrebs, die Augenlaserkorrektur SMILE® sowie 3D-Modellierungen für Prothesen sind allesamt Beispiele für Thüringer Entwicklungen.

1) In Thuringia the industrial health sector creates 17,7 % of gross value added within the regional health sector (the highest percentage in comparison to the other new federal states of Germany).

2) The Thuringian share of gross value added in relation to the total regional gross value added amounts to 13,5 %; This puts Thuringia in fourth place nationwide.

3) The share of industrial health sector employees in the regional healthcare sector amounts to 12,2 % in Thuringia. Among the new federal states of Germany, this is the highest percentage, whereas the national average is 14,2 %.



1st Place

Contribution of the
healthcare industry of the
new federal states of
Germany¹⁾

4th Place

Share of total value added
(cross-country
comparison)²⁾

**Top
employer³⁾**

There is a piece of Thuringia in everything – Medical technologies from A to Z



+ 4,5 %

Growth in annual gross value added⁴⁾

8,2 %

Export growth⁵⁾

13,3 %

Share of total economic output⁶⁾

Why cross the seven seas when there is so much close at hand?

Thuringia has a lot to offer: A central location within Germany and Europe, short distances, a well-developed, modern infrastructure, attractive research and economic centres such as Erfurt, Weimar and Jena, affordable commercial areas as well as a high quality of life.

Where novices and Nobel Prize winners shake hands

Medical technology and biotechnology are developed in Thuringia – in internationally established, future-oriented universities, such as the Friedrich Schiller University Jena, the Ernst Abbe University Jena as well as the Technical University of Ilmenau. Closely linked to the Thuringian research centres and institutes, they form the basis for many patent applications and product developments. Numerous devices and components for ophthalmology, medical robotics, analytics or diagnostics come from Thuringia. Tests for the detection of cervical cancer, the eye laser correction SMILE[®] as well as 3D modelling for prostheses are also examples of Thuringian developments.

4) Growth of the Thuringian health industry. By comparison, growth of the overall economy in Thuringia: +3,8 % per year.

5) Average export growth rate of the Thuringian health industry: 8,2 %. This rate is higher than the export growth rate of the overall Thuringian economy which amounts to 6,4 %.

6) Share of the health industry (total) in the regional economy of Thuringia.

Source: Federal Ministry for Economic Affairs and Energy (BMWi); Gesundheitswirtschaftliche Gesamtrechnung (GGR), Issue 2019; Calculations by WifOR, January 2020

medways vernetzt – regional und international

Was wir für Sie tun:

medways hat sich als **die** Anlaufstelle in puncto Dienstleistungen für die Medizintechnik und Biotechnologie etabliert:

Neben unserem umfangreichen **Seminar- und Tagungsangebot** speziell im Bereich MDR und IVDR stehen wir unseren Verbandsmitgliedern und Partnern in allen Phasen der Produktentwicklung, Zulassung und Vermarktung zur Seite. Wir sind sehr gut vernetzt – mit Unternehmen, Forschungsinstitutionen, Kliniken, Start-ups, Hidden Champions, Projektträgern und politischen Institutionen – regional, national und international.

Wir akquirieren und begleiten Forschungsprojekte (Research Center), wir informieren und schulen (medways Academy), **wir sind Messeorganisator und Sprachrohr** in die Politik (Service Center). Und haben dabei stets ein offenes Ohr für die Themen, die unseren Mitgliedern individuell unter den Nägeln brennen. Kurzum: Wir erkennen die Bedürfnisse der Branche – und packen sie gemeinsam an.



Learn more about us and our services:
Service Centre, Research Centre and
medways Academy
www.medways.eu

Contact:



Acquisition, Networking, Partnering

Dr. Eike Dazert (CEO)
ed@medways.eu



Consulting on Quality Management MDR

Christiane Kuhne (QM auditor)
ck@medways.eu



Consulting on Quality Management IVDR

Christiane Kuhne (QM auditor)
ck@medways.eu



Trade Fairs and International Affairs

Nancy Geißler
ng@medways.eu



Marketing and Back Office

Katja Keimling
kk@medways.eu

medways creates regional and international connections



Connected nationally – with companies and politics (Innocon 2019, Erfurt)



Minister Wolfgang Tiefensee speaking



Seminars, Workshops and Conferences
medways.eu/academy

Our services for you:

medways has established itself as **the** point of contact for services in medical technology and biotechnology:

In addition to our extensive range of **seminars and conferences**, especially in the areas MDR and IVDR, we support our members and partners in all phases of product development, authorisation and marketing of the final product. We are extremely well connected regionally, nationally and internationally – with companies, research institutions, clinics, start-ups, hidden champions, project managers and promoters as well as political institutions.

As part of our services **we acquire, link and accompany research projects** (Research Centre), we provide information and training (medways Academy), **we organise joint trade fair stands and act as spokesperson** for our members in political affairs (Service Centre). Furthermore, we always offer a sympathetic ear and listen to the feedback, questions and concerns of our members. In short, we recognize the needs of the industry – and address them together.

The facts speak for themselves:

1999: 7 Members

2009: 49 Members

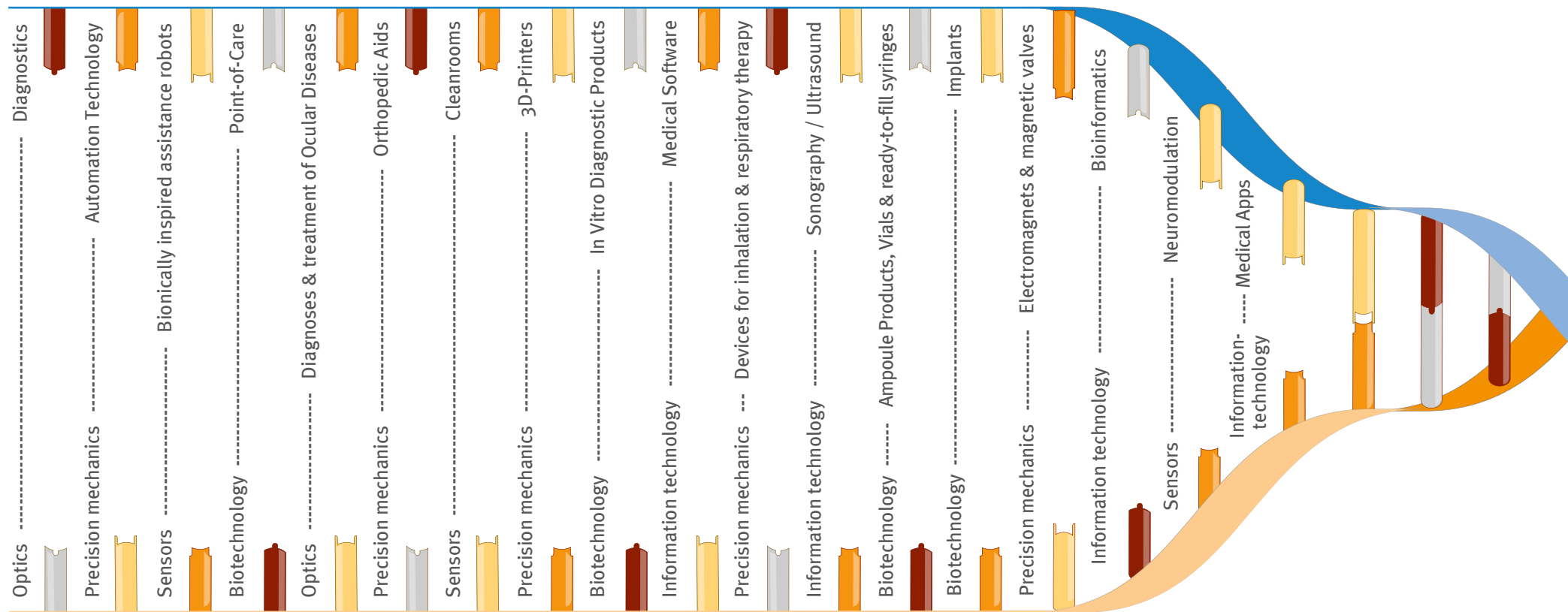
2024: 87 Members



Schlüsseltechnologien und ihre Anwendungen – das Herzstück unserer Verbandsarbeit

Ein Auszug aus dem Portfolio unseres Netzwerkes:

Entwicklung neuer Applikationen ...
Development of new applications ...



... mit Hilfe der Schlüsseltechnologien unseres Netzwerkes.

... through the use of the key technologies of our network partners.

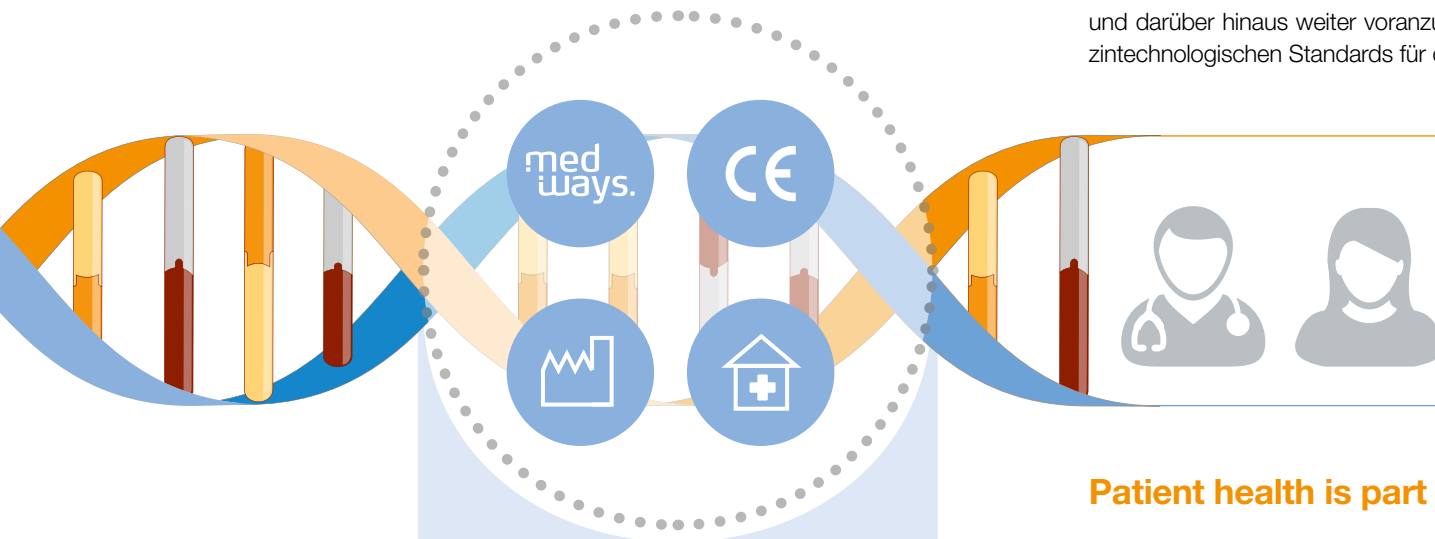
Key technologies and their applications – The core of our work



A sample from the portfolio of our network:

Die Gesundheit des Patienten gehört zu unserer DNA

Seit über 20 Jahren nutzen wir die Kraft unseres Netzwerkes – mittlerweile 90 Mitglieder stark – und bringen innovative Ideen in der Medizintechnik und Biotechnologie aus Thüringen „an den Patienten“. Wir begleiten Unternehmen – vom Start-up bis zum etablierten Konzern – bei der Ideenfindung, bei der Projektbeantragung und -organisation; wir beraten zur Norm-konformen CE-Zulassung von Medizinprodukten und In-vitro-Diagnostika; wir bringen Ideengeber, Unterstützer, Förderer und Inverkehrbringer an einen Tisch. Und haben dabei stets ein Ziel im Blick: die Medizintechnik und Biotechnologie in Thüringen und darüber hinaus weiter voranzubringen, um Ärzten und Kliniken auch zukünftig die höchsten medizintechnologischen Standards für die bestmögliche Behandlung des Patienten zur Verfügung zu stellen.



medways vernetzt Forschung, Industrie und Klinik bei der Entwicklung neuer Applikationen anhand der vorhandenen Schlüsseltechnologien in den Unternehmen.

We at medways link, encourage and support research, industry and clinics in the development of new applications based on existing key technologies.

Patient health is part of our DNA

For more than 20 years, we have been using the power of our network, which today comprises 90 members. We build bridges by bringing innovative ideas in medical technology and biotechnology from Thuringian companies to “the patient”. We accompany companies ranging from start-ups to established companies in the development of ideas, project applications and organisation; we advise on the standard-compliant CE approval of medical products and in vitro diagnostics; we bring together ideas, supporters, promoters and market providers. In doing so, we always pursue our main goal: to further advance medical technology and biotechnology in Thuringia and beyond in order to offer doctors and clinics with the highest medical standards for the best possible treatment of their patients in the future.

Von der Idee zum Recycling: medways und medConform schaffen Mehrwert entlang der kompletten Prozesskette eines Medizinproduktes!

From the initial idea through to final recycling: medways and medConform add value along the entire process chain of medical devices!

Our services at a glance:

Idea / Individual components

Testing of material properties for compatibility - Laboratory mediation DIN EN ISO 10993, biological assessment of medical devices

Funding projects and development

Current tenders and calls for proposals (e.g. state level, federal and EU tender), acquisition, application, reporting, commercial support and public relations, elaboration of appropriate standards and laws, regulatory information on documentation obligations under MDR and IVDR, start-up consulting

Quality management / Technical documentation

Introduction of quality management systems according to DIN EN ISO 13485, preparation of technical documentation according to MDR 2017/745, IVDR 2017/746, clinical assessments/performance assessments according to MDR, IVDR and MED-DEV, assessment of requirements and pre-conditions for clinical trials

Training and professional development

Imparting knowledge on current legislation and relevant standards and guidelines

CE Approval/Certification

Internal auditing of your QM system, according to DIN EN ISO 19011 and especially within the framework of DIN EN ISO 13485, database entries

Market launch

Health insurance coverage, participation in trade fairs – joint presentations and stands, search for investors

Market observation

Establish contacts with users for post-market surveillance, contacts to clinics and hospitals, update of technical documentation, database research, clinical trials, clinical data, clinical assessments

Waste management and Recycling

Disposal guidelines, recycling of individual components, update of technical documentation, database entries

**med
ways.**

Industry association for medical technology/biotechnology

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- ✓ Magnetic nanoparticles: Synthesis, Functionalization, Imaging
- ✓ Electrical and magnetic measurement and sensor technology
- ✓ Electrical and magnetic stimulation technology
- ✓ Ultra wideband microwave imaging and sensor technology
- ✓ Application of ionizing radiation and radiation protection
- ✓ Ophthalmological diagnostic technology: scattering light analysis, vascular analysis, fluorescence lifetime imaging
- ✓ Measurement of optical and photometric parameters and design of optical systems

Certified study degree programs:

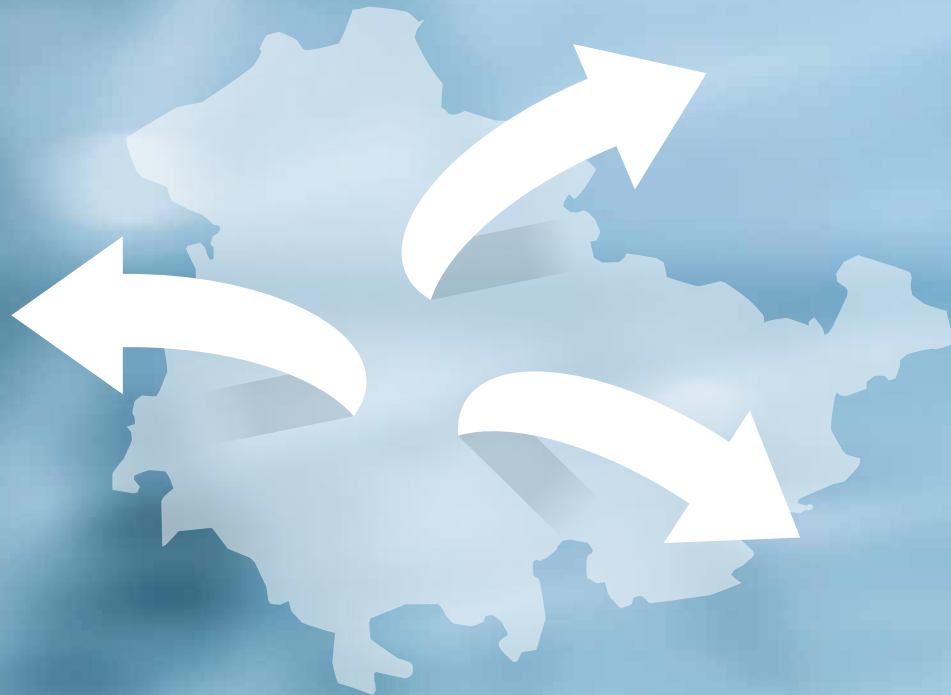
- ✓ Bachelor in Biomedical Engineering (in German)
- ✓ Master in Biomedical Engineering (in German)
- ✓ Doctorate (PhD) in Biomedical Engineering (in German and English)

Director of the Institute:
Univ.-Prof. Dr.-Ing. habil. Jens Hauelsen

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Know-how regional und international vernetzt.

Regional expertise closely linked to an international network.

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There is a piece of Thuringia in everything – Medical technologies from A to Z.

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