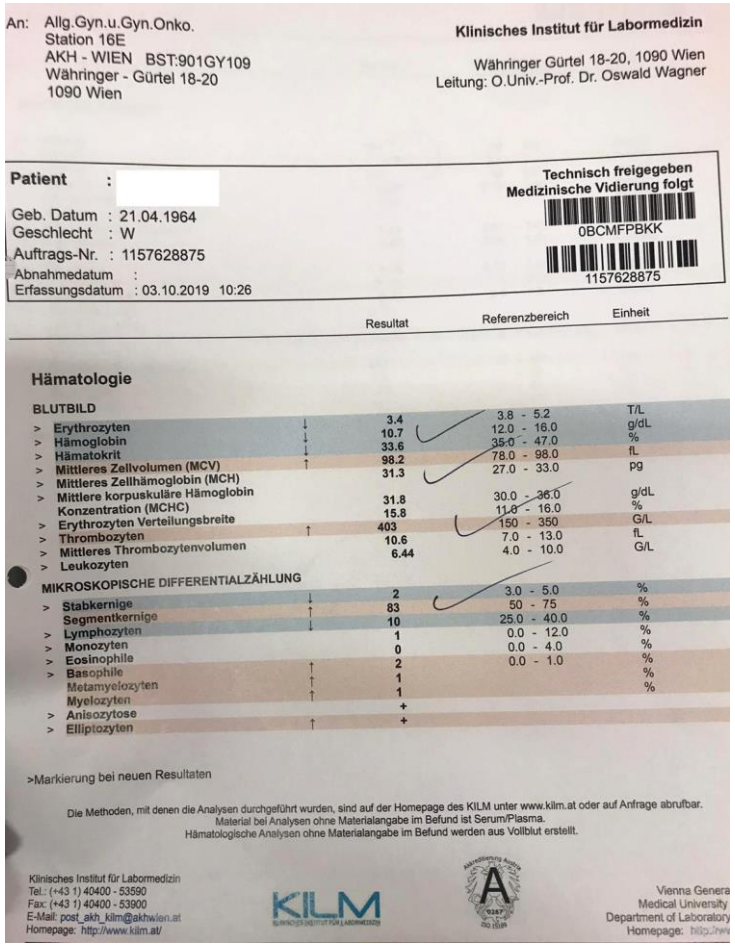
Medical Pass

Electronic Medical Records

Electronic medical records (EMRs) are digital version of the paper charts in the Medical Institutions. An EMR contains the medical and treatment history of the Patients in one practice. EMRs have advantages over paper records. For example, EMRs allow to:

- Track data over time
- Easily identify which patients are due for preventive screenings or checkups
- Check how Patients are doing on certain parameters—such as blood pressure readings or vaccinations
- Monitor and improve overall quality of care within the practice

But the information in EMRs doesn't travel easily *out* of the practice. In fact, the Patient's record might even have to be printed out and delivered by mail to specialists and other members of the care team. In that regard, EMRs are not much better than a paper record.



An: Allg.Gyn.u.Gyn.Onko.
Station 16E
AKH - WIEN BST:901GY109
Währinger - Gürtel 18-20
1090 Wien

Klinisches Institut für Labormedizin
Währinger Gürtel 18-20, 1090 Wien
Leitung: O.Univ.-Prof. Dr. Oswald Wagner

Patient :
Geb. Datum : 21.04.1964
Geschlecht : W
Auftrags-Nr. : 1157628875
Abnahmedatum :
Erfassungsdatum : 03.10.2019 10:26

Technisch freigegeben
Medizinische Vidierung folgt
0BCMFPBKK
1157628875

		Resultat	Referenzbereich	Einheit
Hämatologie				
BLUTBILD				
> Erythrozyten	↓	3.4	3.8 - 5.2	T/L
> Hämoglobin	↓	10.7	12.0 - 16.0	g/dL
> Hämatokrit	↓	33.6	35.0 - 47.0	%
> Mittleres Zellvolumen (MCV)	↑	98.2	78.0 - 98.0	fL
> Mittleres Zellhämoglobin (MCH)		31.3	27.0 - 33.0	pg
> Mittlere korpuskuläre Hämoglobin Konzentration (MCHC)		31.8	30.0 - 36.0	g/dL
> Erythrozyten Verteilungsbreite		15.8	11.0 - 16.0	%
> Thrombozyten	↑	403	150 - 350	G/L
> Mittleres Thrombozytenvolumen		10.6	7.0 - 13.0	fL
> Leukozyten		6.44	4.0 - 10.0	G/L
MIKROSKOPISCHE DIFFERENTIALZÄHLUNG				
> Stabkernige	↓	2	3.0 - 5.0	%
Segmentkernige	↑	83	50 - 75	%
> Lymphozyten	↓	10	25.0 - 40.0	%
> Monozyten		1	0.0 - 12.0	%
> Eosinophile		0	0.0 - 4.0	%
> Basophile		2	0.0 - 1.0	%
Metamyelozyten	↑	1		%
Myelozyten	↑	1		%
> Anisozytose		+		
> Elliptozyten	↑	+		

>Markierung bei neuen Resultaten

Die Methoden, mit denen die Analysen durchgeführt wurden, sind auf der Homepage des KILM unter www.kilm.at oder auf Anfrage abrufbar.
Material bei Analysen ohne Materialangabe im Befund ist Serum/Plasma.
Hämatologische Analysen ohne Materialangabe im Befund werden aus Vollblut erstellt.

Klinisches Institut für Labormedizin
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E-Mail: post_akh_kilm@akhwien.at
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KILM

A

Vienna Genera
Medical University
Department of Laboratory
Homepage:

Medical Pass

Electronic Health Records

Electronic health records (EHRs) do all those things—and more. One of the key features of EHRs is the focus on the total health of the Patient—going beyond standard data collected in the provider's office and inclusive of a broader view on a Patient's care. EHRs are designed to reach out *beyond* the health organization that originally collects and compiles the information. They are built to share information in a digital format with other health care providers and organizations – such as laboratories, specialists, medical imaging facilities, pharmacies, emergency facilities, school and workplace clinics– so they contain information from *all clinicians involved in a patient's care*.

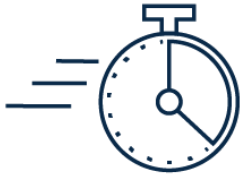
EHR EMR

EHRs are a vital part of health IT and can:

- Contain a Patient's medical history, diagnoses, medications, treatment plans, immunization dates, allergies, radiology images, and laboratory and test results
- Allow access to evidence-based tools that providers can use to make decisions about a Patient's care
- Automate and streamline provider workflow

Medical Pass

Electronic Health Records Benefits



FAST ACCESS TO PATIENT DATA

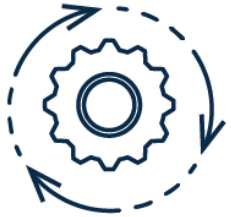
CONNECTS HOSPITALS

SECURE PERSONAL INFORMATION

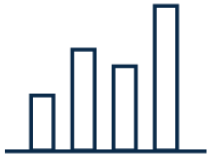
ACCESS TO ALL RECORDS

SETTING APPOINTMENTS

CONNECTING FACILITIES



AUTOMATION OF WORKFLOW



STATISTICS & ANALYSIS

TEAM EFFORT TREATMENTS

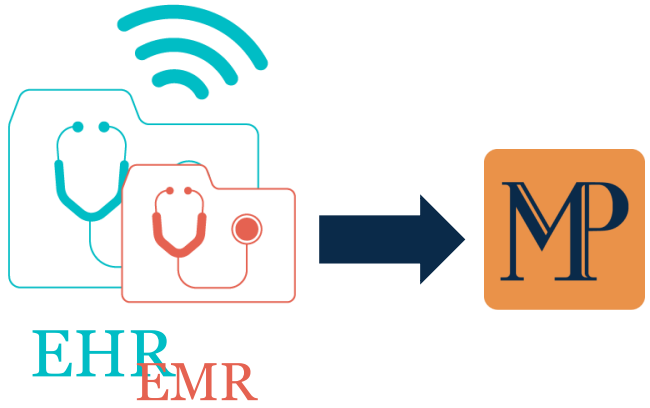
Medical Pass

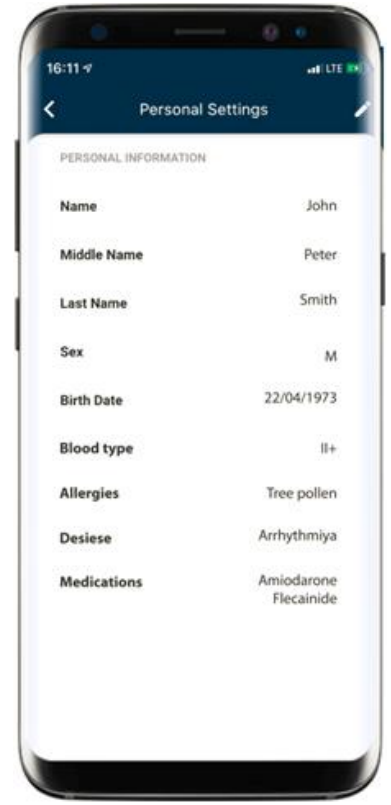
Personal Health Records

It is important to note that PHRs are not the same as EHRs or EMRs, which are software systems designed for use by health care providers. Like the data recorded in paper-based medical records, the data in EHRs are legally mandated notes on the care provided by clinicians to Patients. However, there is no mandate requiring Patients to track their own health data. Like EHRs and EMRs, PHRs may still fall under the regulatory scope of governments, depending on their origin, but rigorous regulatory protection of their data is still lacking in parts of the world.

PHRs can contain a diverse range of data, including but not limited to:

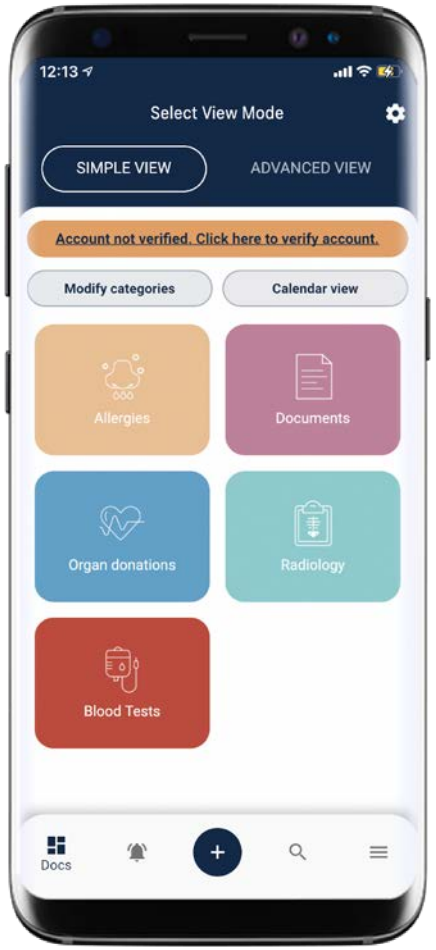
- EHRs and EMRs,
- Allergies and adverse drug reactions,
- Chronic diseases,
- Family medical history,
- Illnesses and hospitalizations,
- Imaging reports (e.g. X-ray, PET CT),
- Laboratory test results and Vaccinations
- Prescription records, Medications and dosing,
- Surgeries and other procedures,
- Observations of daily living (ODLs)

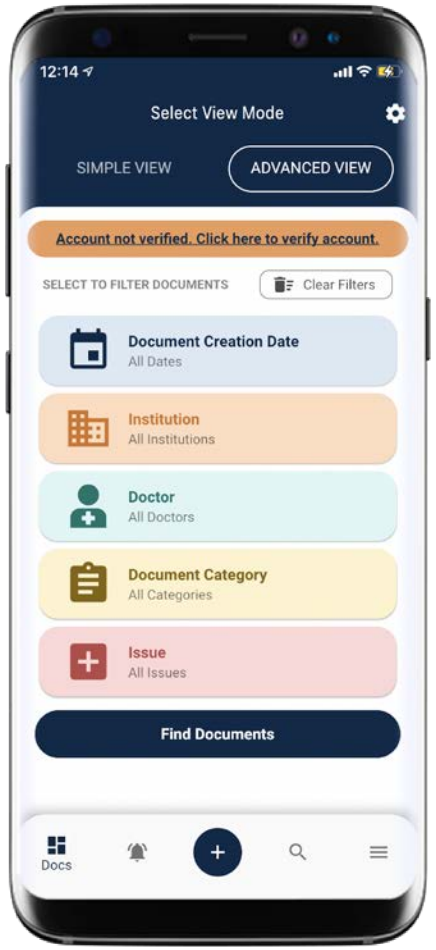


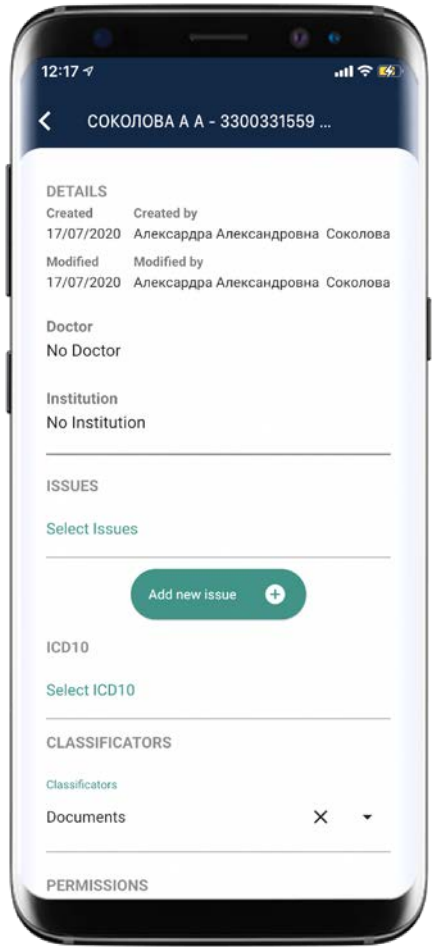


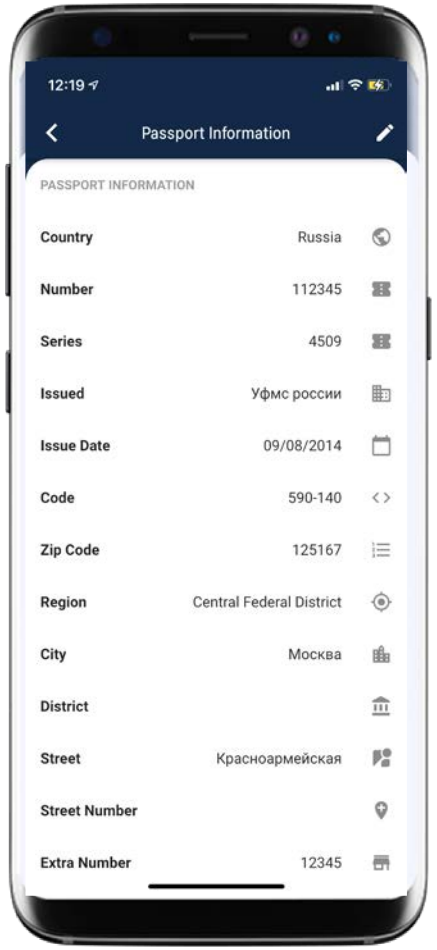
Medical Pass

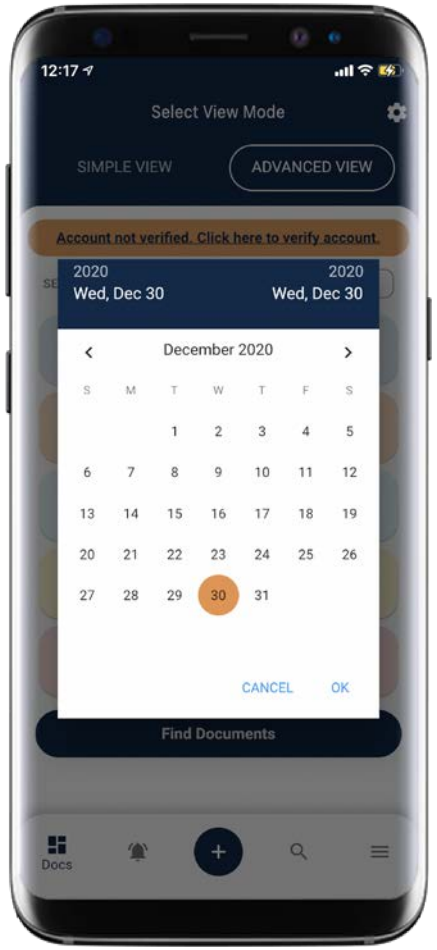
Introducing Medical Pass – PHR App





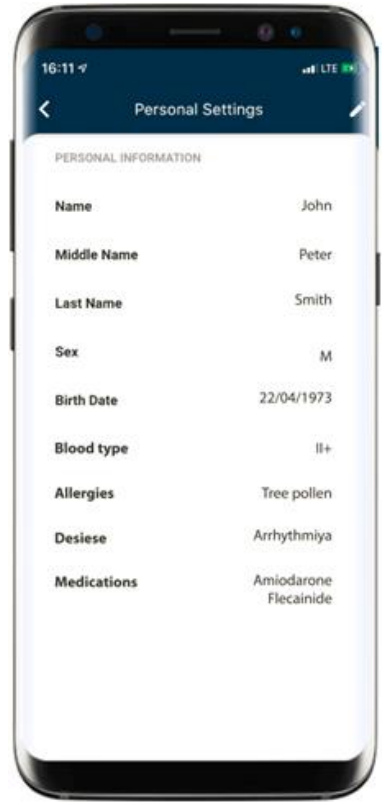






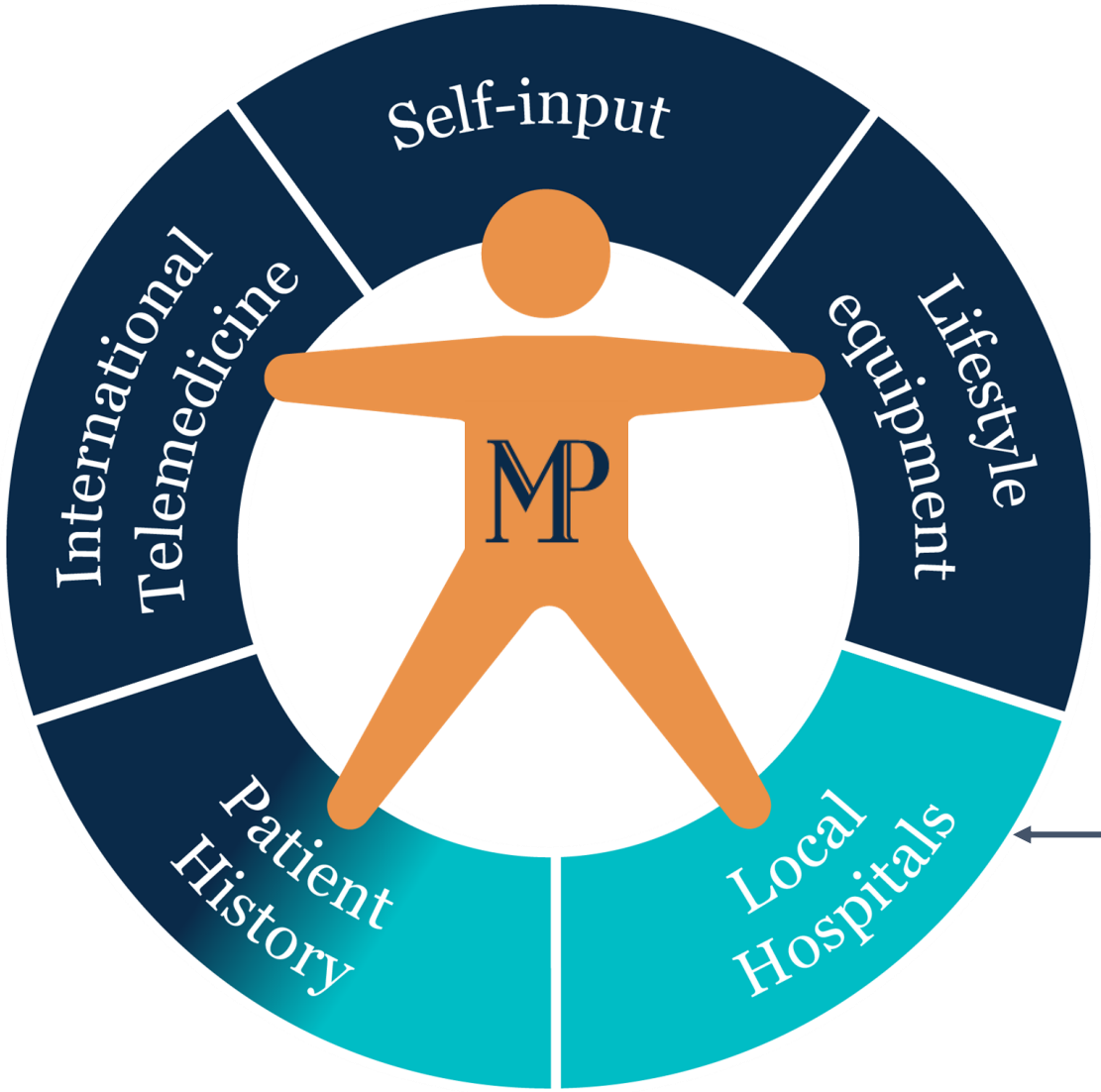
Medical Pass

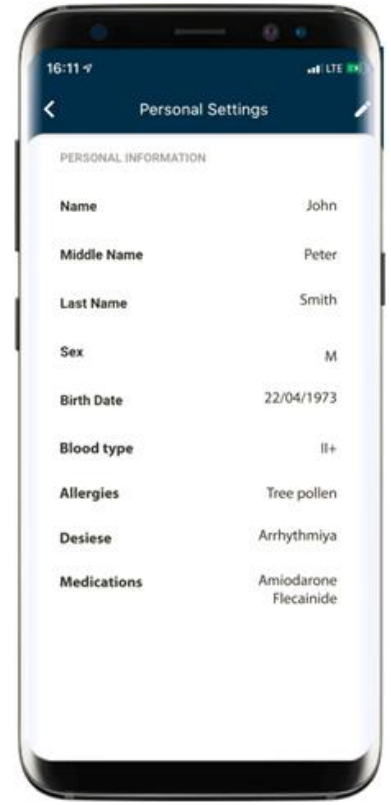
5 Sources of Personal Health Information



Medical Pass

5 Sources of Personal Health Information

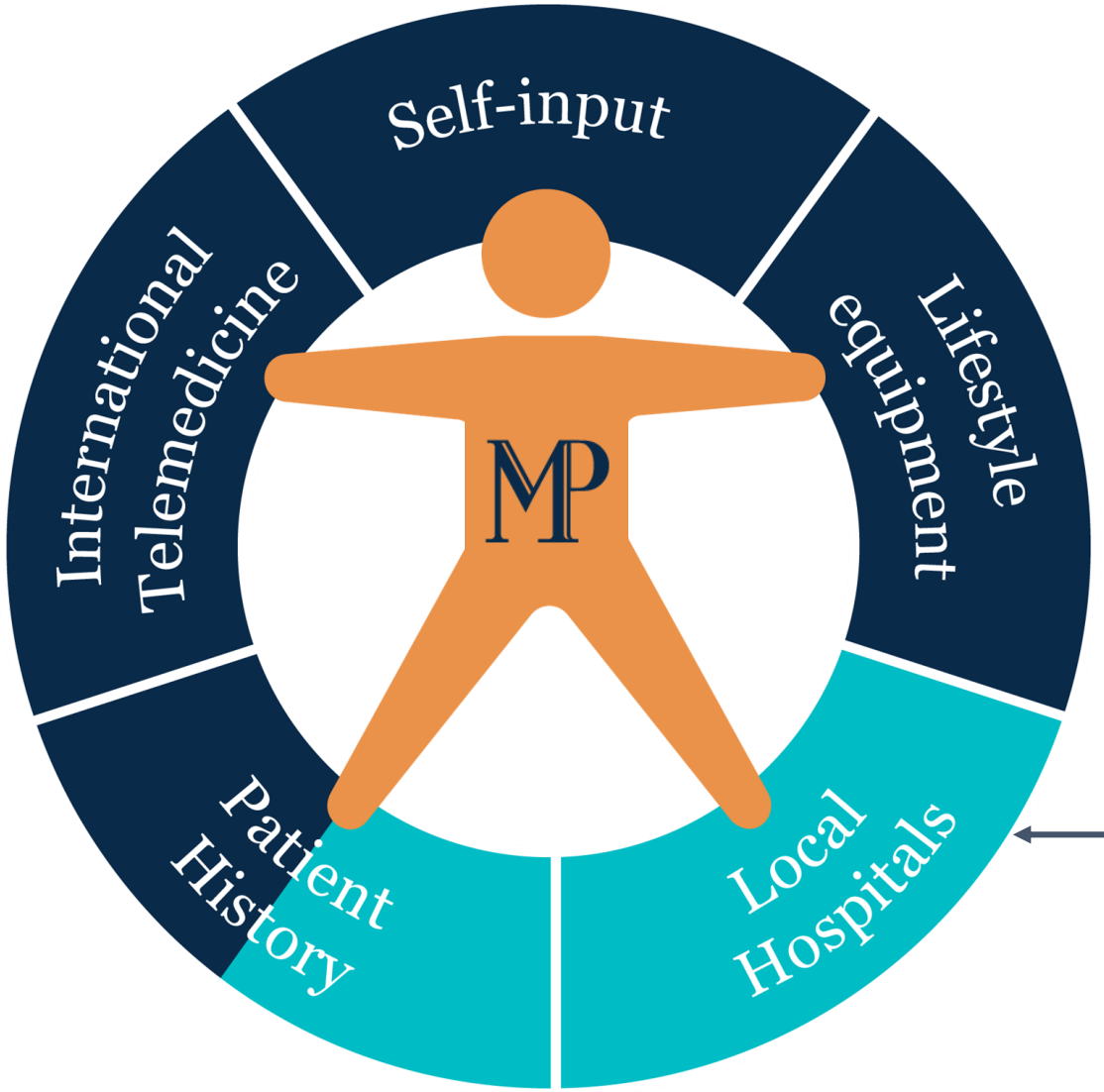




EHR EMR

Medical Pass

5 Sources of Personal Health Information

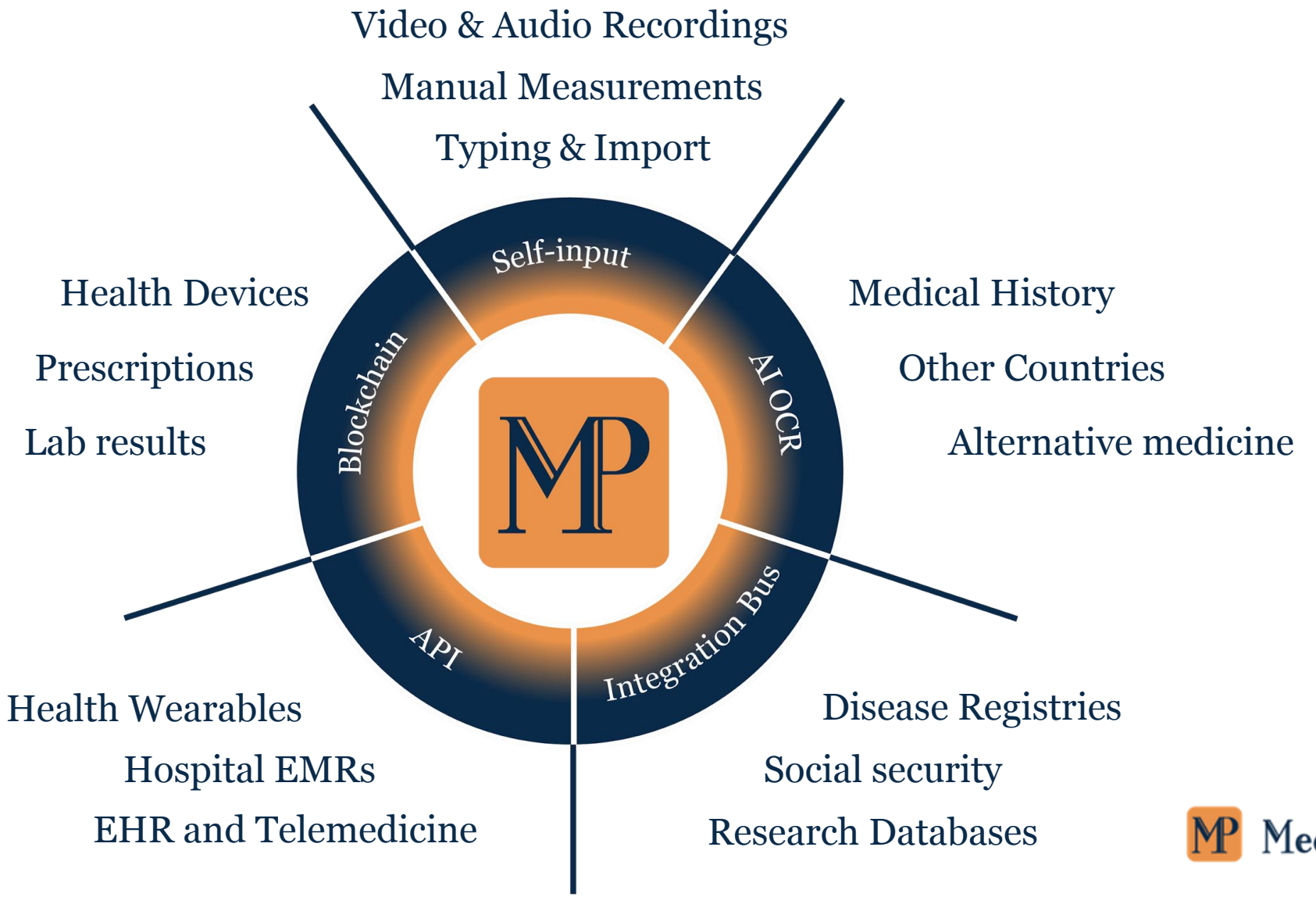


30% to 40% of medical information come from existing EHR and EMR systems

EHR EMR

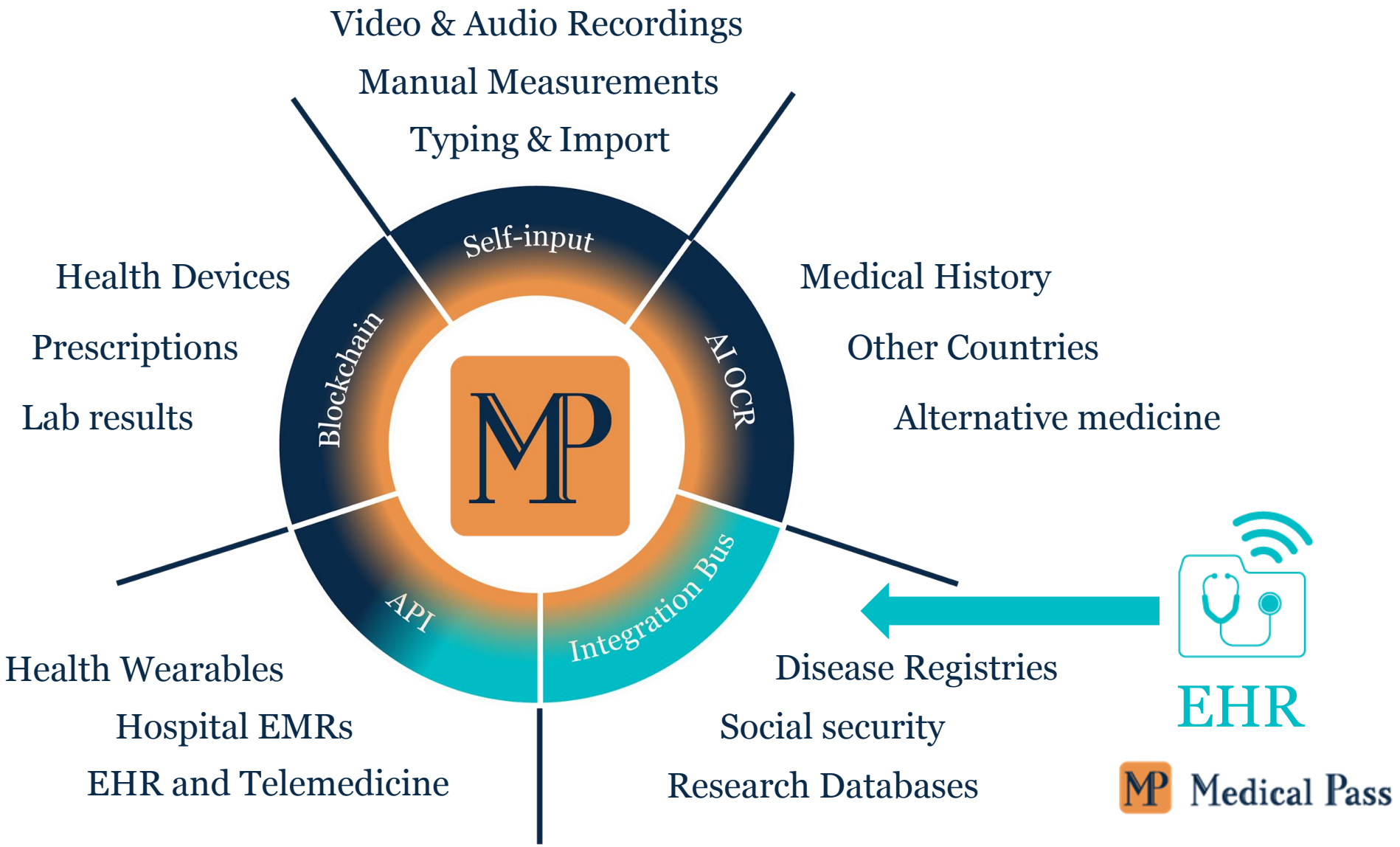
Medical Pass

Medical Pass Technical 5 Methods of Input



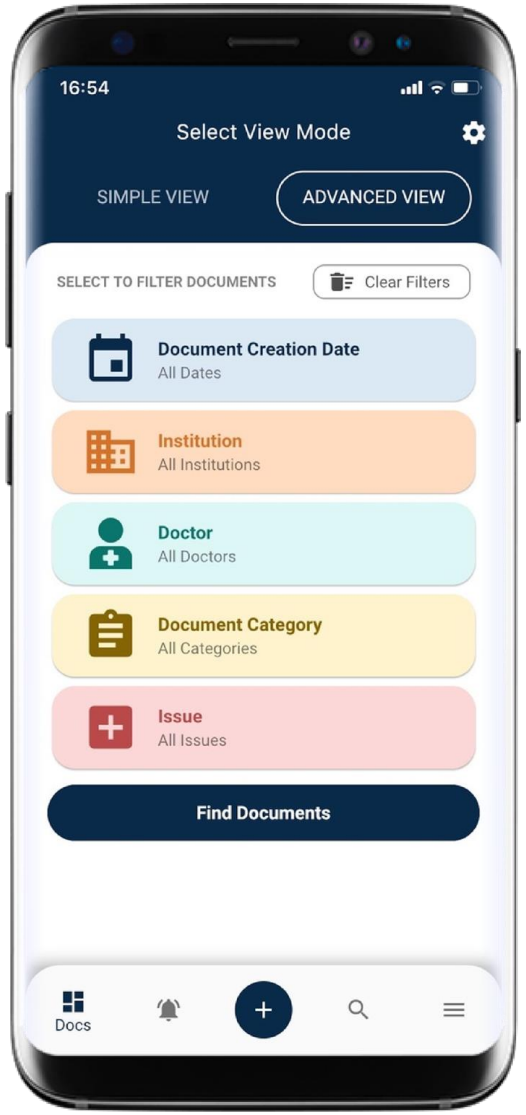
Medical Pass

Medical Pass Technical 5 Methods of Input



What can Medical Pass add to EHR

EHR



Medical Pass

Blockchain

Certain medical documents contain important information that is used for legal purposes. These include Lab Results for certain viruses (HIV, hepatitis, COVID-19), confirmation for vaccines (Malaria, Ebola) and reports on diseases (heart diseases, diabetes, etc.).

This legally important medical information should be uploaded to the system by Medical Institutions with the Blockchain verification for Authorities to know the source of information and be sure the results were not tampered with.

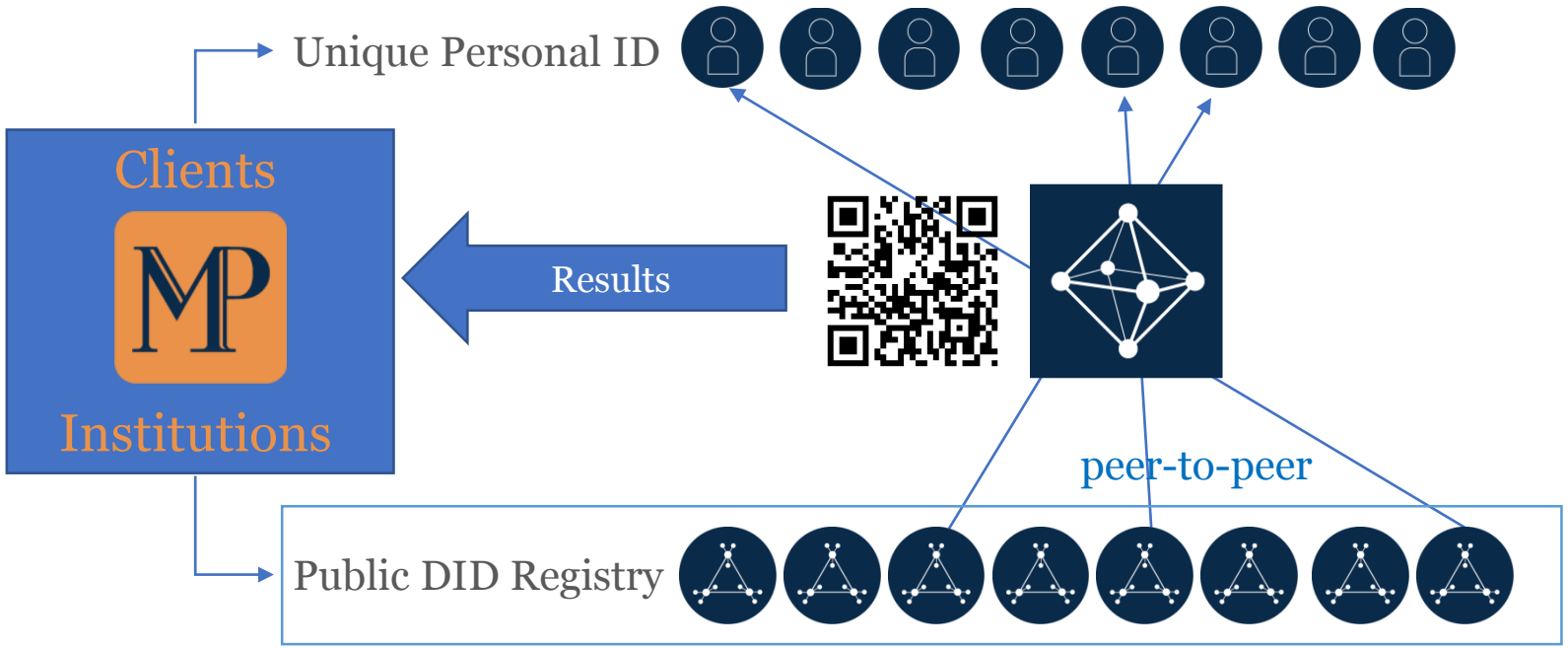
Blockchain verified data will be displayed in a special section of the MP app or Mobile Wallet apps, with an option of quick view for checking out by Authorities through a QR code or Bar Code of the patient that he can present via cards, bracelets, stickers or mobile wallet, that also include basic patient info in case of emergency

Medical Pass

Blockchain

All the Blockchain verifiable information is sent peer-to-peer and only the institution and the client/patient can see them and show them to a third party, thus keeping the records completely compatible with GDPR guidelines.

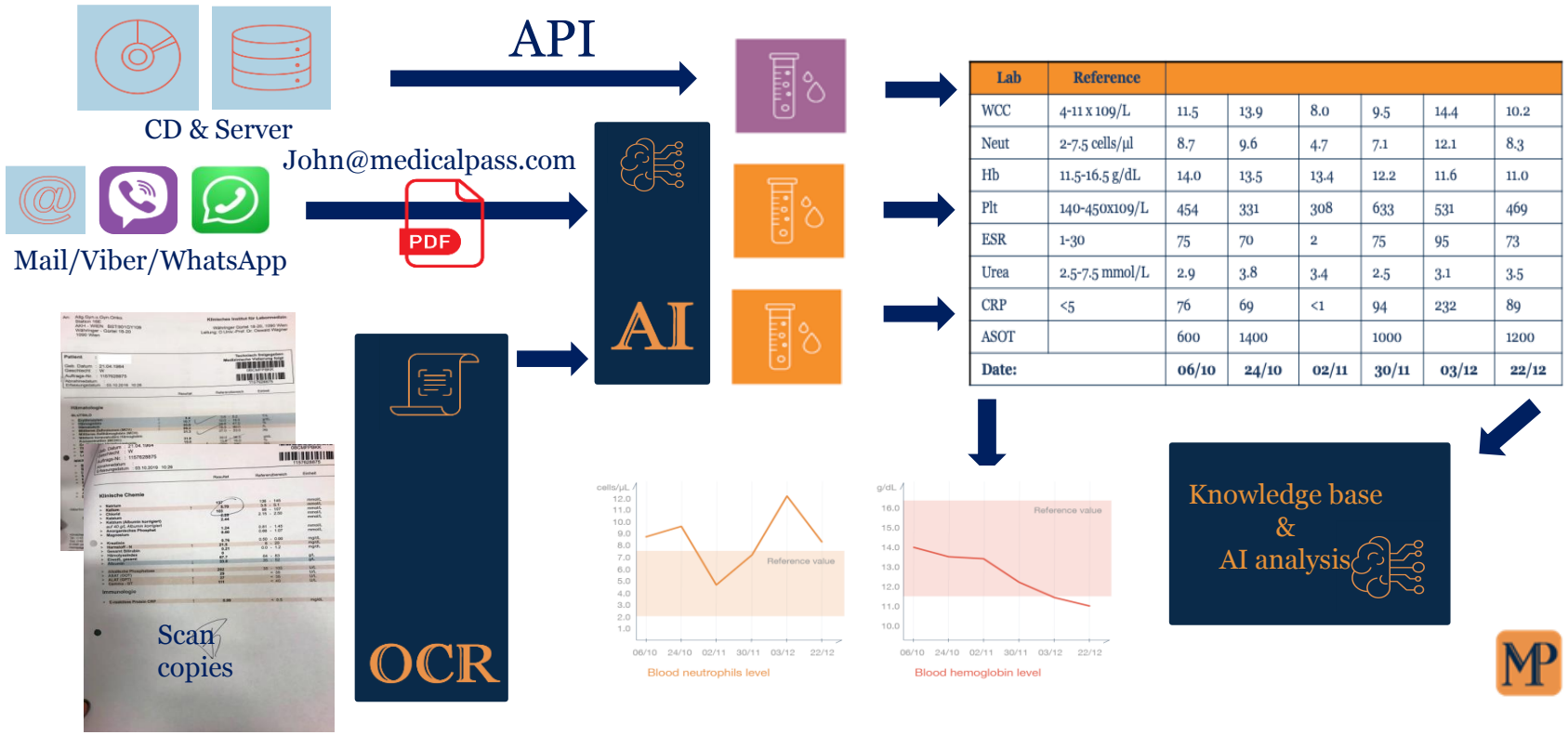
The Institutions that deliver the result have a unique Digital ID that is maintained by the authorities, and they can issue verifiable information to unique personal wallets of clients / patients



Medical Pass

Additional Medical Information outside EHR

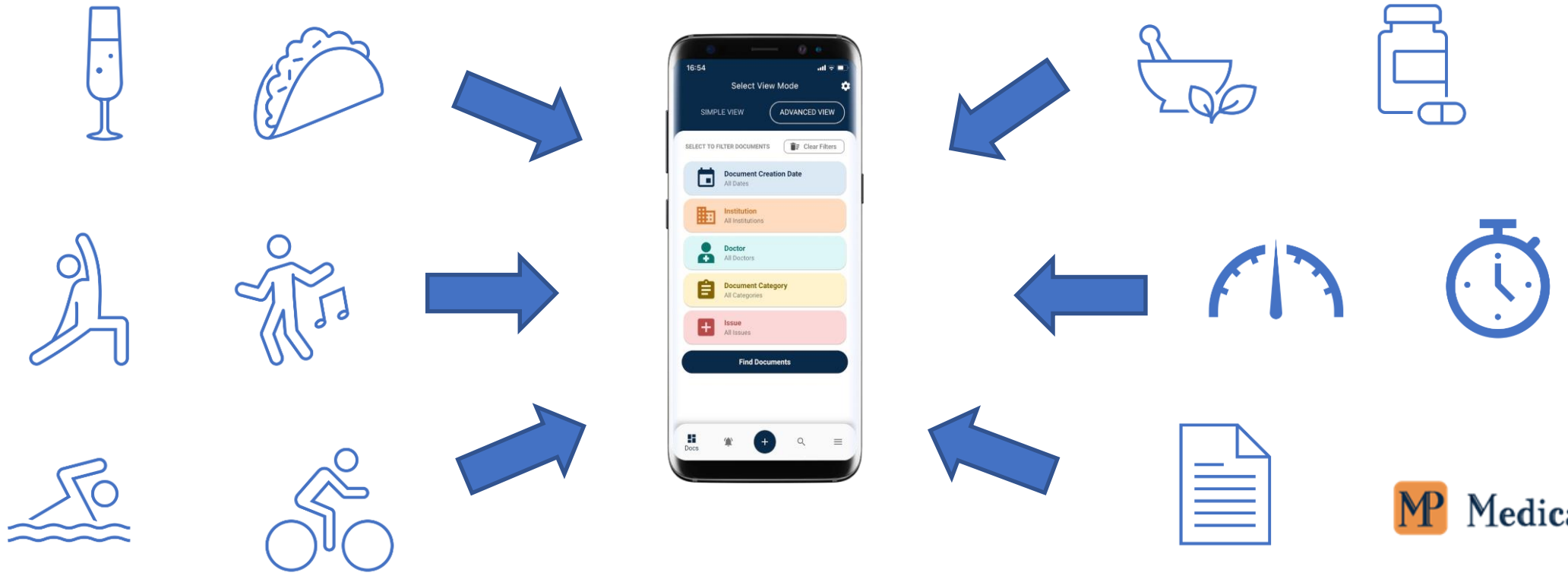
There is a lot critical medical information in a form of an unstructured data that is on paper, scans, DVDs, emails and unconnected EHS, which needs to be processed in order to have a proper analysis. Medical Pass, using Machine Learning and AI, processes data from APIs, PDFs, other commonly supported files, and paper to bring this in the Personal Health record for a truly Holastic picture of the client / patient



Medical Pass

Lifestyle - Observations of Daily Living

Understanding the way to prevent or solve health problems also largely depends on lifestyle. What a person eats and drinks, how much he or she cycles and swims, what are the daily habits and exercises, what additional or alternative medicine they take, how do they feel during the day – this all is critical information. Additionally, today's mobile phones and watches are collecting all the vital body information such as pulse or oxygen in the blood. All of this information collected by Medical Pass is crucial for proper analysis and diagnosis.



Medical Pass

What can Medical Pass add to EHR

- FAST ACCESS TO PATIENT DATA
- CONNECTS HOSPITALS
- SECURE PERSONAL INFORMATION
- ACCESS TO ALL RECORDS
- SETTING APPOINTMENTS
- CONNECTING FACILITIES
- AUTOMATION OF WORKFLOW
- STATISTICS & ANALYSIS
- TEAM EFFORT TREATMENTS

EHR

- .... Registry
- Cardio Registry
- Cancer Registry

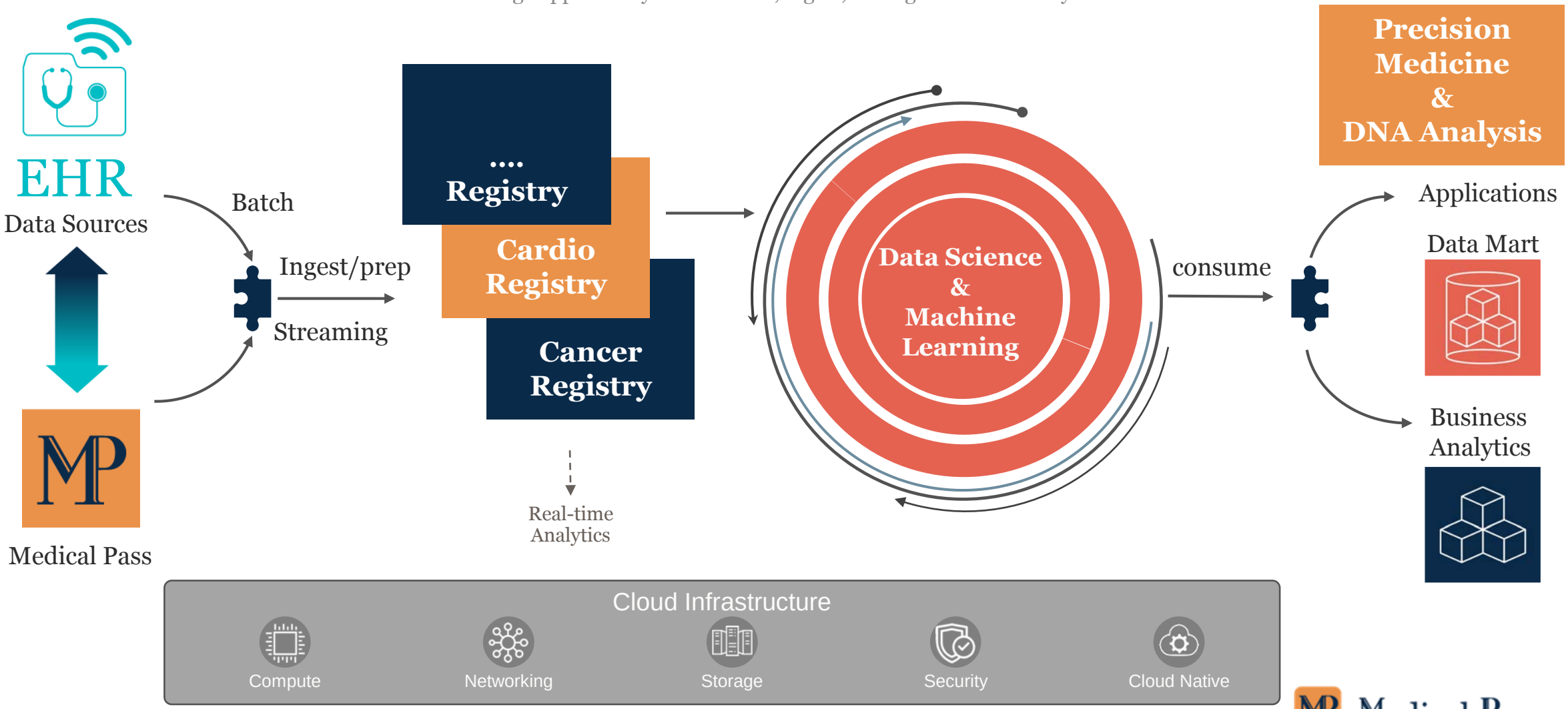
- Blockchain
- AI OCR
- Lifestyle

Manual Input

Medical Pass

Oracle Data Science Platform

Machine learning supported by data sources, ingest, management and analytics



Medical Pass

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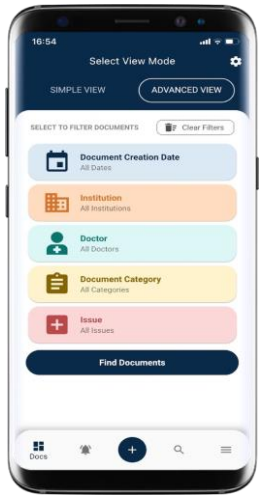
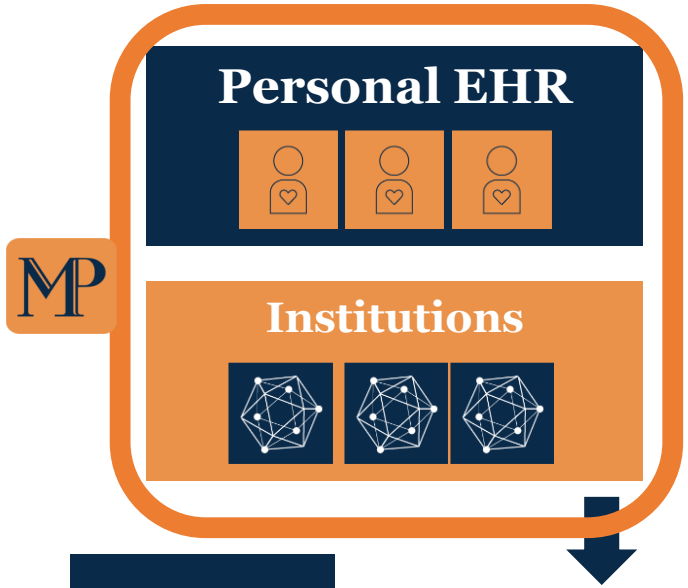
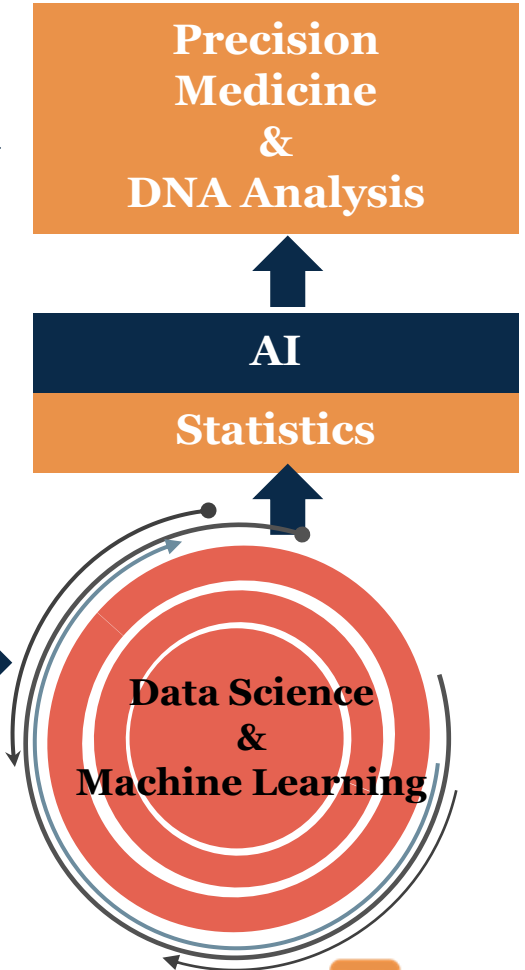
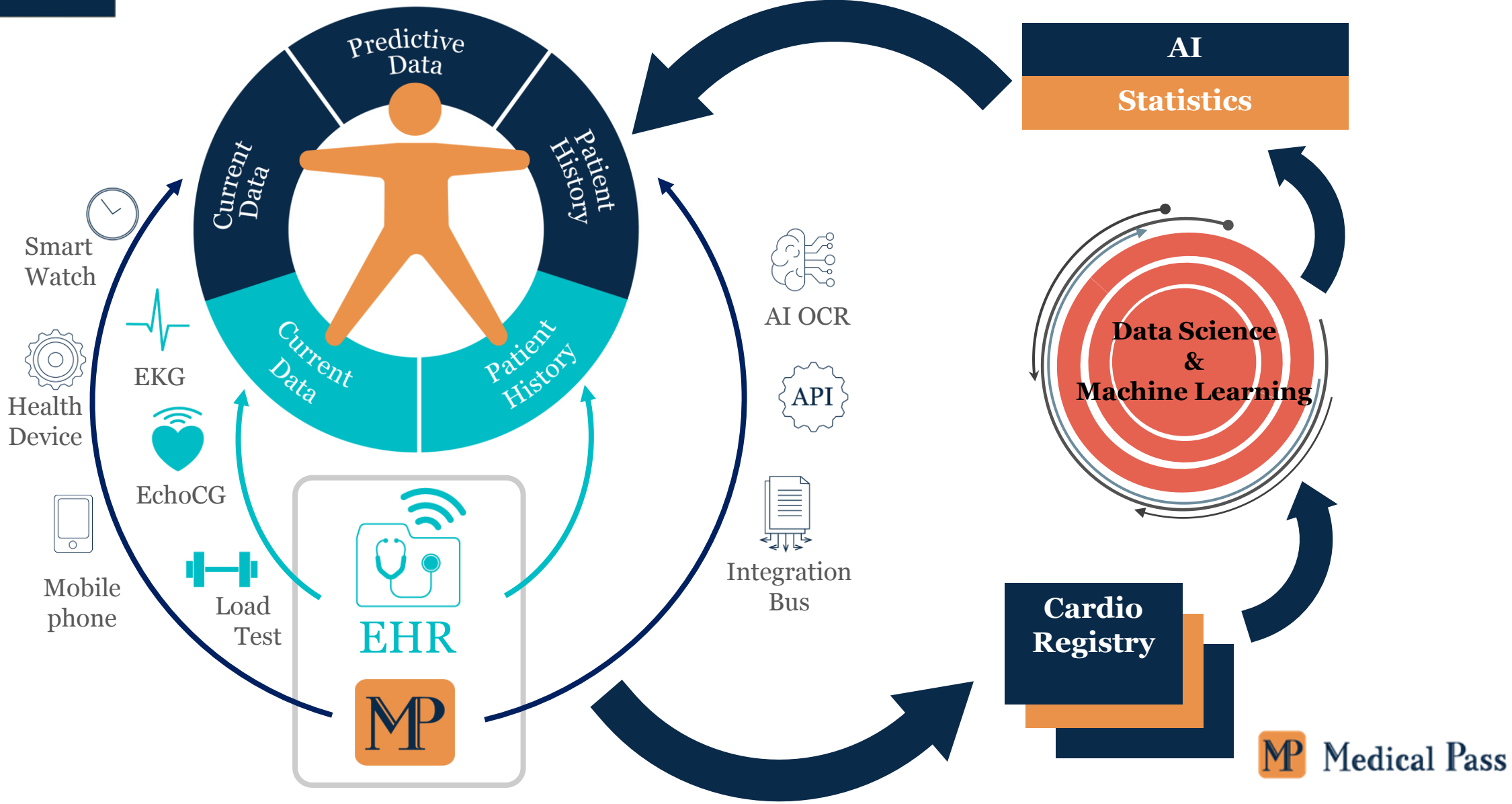
Example for Oncology Precision Medicine Use



EHR





Medical Pass

Example for Cardiology Precision Medicine Use